

THE AUTOMOBILE

HARRISBURG RUN'S BIG PRIZE WON BY A STEAMER

HARRISBURG, PA., May 6.—At 2 o'clock this morning, after seven hours' hard work, the technical committee of the Motor Club of Harrisburg decided that the White, driven by Walter White, had won the Class A cup in the club's second annual endurance run with a perfect score. The win carries with it a victory in the run-off of last year's tie—the first double-headed triumph in the annals of automobiling. When the extremely critical examination is taken into consideration, the victory is all the more creditable.

Before arriving at their verdict, each of the even-score cars turned over to the committee was tested on a nearby hill for brake efficiency; clutches were tested by putting front wheels against a high curb to see if the rear wheels would spin; both ignition systems were gone over; transmissions were tried for defects in gear working; every wheel, axle, spring, frame, motor, and gear-set was examined; every bolt, nut, and pin was gone

over. Nothing was overlooked. The car that survived such a critical test deserved a victory, be its road demerits ever so many. As a matter of fact, they were few and far between.

In the big runabout class the Pullman went through the exacting scrutiny with the smallest number of penalty points, and Harry Croninger's Pennsylvania had only five points more.

The committee were so tired after cleaning up Classes A and C that they knocked off for the night, and will finish after breakfast.

The figures for the two days, as far as completed, are:

Class A—Touring Cars Costing \$2,250 and Over.

No.	Car	H.P.	Driver	Road Pen.	Tech. Pen.	Total
28	White	30	Walter White.....	0	0	0
16	Thomas	60	Fred Moselein.....	0	15	15
5	Pullman	40	Robert Morton.....	65	0	65
10	Stoddard-Dayton....	45	R. Shirk.....	69	0	69



General View in Reading, Where the Contestants Checked on the First Day of the Endurance Run.

Class C—Runabouts Costing \$2,000 and Over.

No.	Car	H.P.	Driver	Road Pen.	Tech. Pen.	Total
8	Pullman	40	Stuart Lafean	0	6	6
27	Pennsylvania	50	R. H. Croninger	0	11	11
25	Rambler	32	A. H. Bitner	0	17	17
17	Apperson	50	C. J. Swain	13	5	18
4	Pullman	40	E. G. Irvin	9	51	60

The observers' reports showed that the penalties accumulated by cars of Classes B and D for work on the road, engine stops, and breaking seals on those cars turned over to the technical committee are as follows:

Class B—Touring Cars Costing Less Than \$2,250.

No.	Car	H.P.	Driver	Cause	Points
19	Maxwell	24	Charles Fleming	Oiling	2
21	Maxwell	20	Andrew Bender	Adjusting oiler	2
23	Cadillac	20-25	C. C. Crispin	Broken spring	4
6	Pullman	20	Max Graupner	Oiling, 6; spark plugs, 8; seals, 5	19

Class D—Runabouts Costing Under \$2,000.

No.	Car	H.P.	Driver	Cause	Points
12	Pullman	20	C. C. Cumbler		0
20	Maxwell	20	John Sellers		0
22	Mitchell	35	W. M. Cram		0
9	Pullman	20	C. C. Cocklin	Oiling, 10; fender, 10; battery, 4; seals, 5	29
24	Ford	15-18	A. A. Jones	Ignition, 70; stop, 158; seals, 15	243

The checkers' figures have not as yet been analyzed, and some of the above cars will have a few more points chalked up against



Walter White at Wheel of Steam Winner.

them for lateness at controls, but, generally speaking, few of the contestants suffered from this cause. Four cars were not turned over to the technical committee, and these also will have to be added.

What Happened on the First Day.

PHILADELPHIA, May 4.—The first day's summing up of the performances of the twenty-six cars that started this morning in the two-day endurance run of the Motor Club of Harrisburg shows that eleven have clean scores up to date. Five others are in a mix-up with the checker at Easton, his records showing that they checked in ahead of time. The matter is in abeyance, and the quintet may satisfy the contest committee that they did not fracture the rules. All but one of the twenty-six cars are still in the run, the Stoddard-Dayton, driven by Howard Hodson, having been put *hors de combat* by smashing up while coming into Doylestown.

Among the immaculates up to date are three Class A's, two B's, four C's, and two D's, the latter pair being J. S. Trego's Jackson and A. A. Jones' Ford. These little fellows performed their task like veterans, and asked no favors of their high-powered rivals. Arthur Kumpf and Walter White are still clean, and will bend every effort to capture the 1907 cup, which was tied up with four clean scores. One of these did not start, the other, the Pullman, driven by "Bob" Morton, collected sixty-one bad marks on the road to-day.

The start was made at 7:30, under a leaden sky, which spat rain at intervals and drove the travelers to oilskins and rubber coats. It was but a flash in the pan, however, and the weather man handed out a fair article, barring the bleak southeast wind, which persisted throughout the day. Road conditions were as good as they can be over the route selected, lots of alleged road repairing being in progress for miles out of Harrisburg, which "dragged" the contestants badly. The eighty minutes proved more than enough, however, to allow all but C. C. Cocklin's Pullman No. 9 to get under cover of the Lebanon control safely. A broken water connection delayed him twenty-five minutes. After that it was well within the powers of an average car and driver to make the controls, even the much-dreaded Reading-Allentown leg and the Easton-Doylestown, which proved fatal to the hopes of so many Quakers last New Year's Day, being negotiated with ease by the majority of the cars. The schedule was liberally sprinkled with "danger" warnings all along the two controls, but nothing untoward happened until A. J. Hamilton's Stoddard-Dayton No. 11 skidded on rounding a curve, and was temporarily put out of the running. Neither Hamilton nor his driver, Howard Hudson, was hurt.

Tire troubles were not unreasonably frequent during the run, the greatest sufferer in this respect being the 1905 Franklin-20, which the Central Pennsylvania Automobile Company loaned the committee for the purpose. Fully a dozen punctures were suffered by the pressmen's car, and it fell so far behind that it became necessary to cut the course, running direct from Reading to Philadelphia, and at that the car was not garaged until after 6:30.

The first car to show up at to-day's finish was E. G. Irvin's Class C Pullman, which arrived at the White garage on the dot at 4 o'clock, twenty minutes ahead of time. J. S. Trego's Class D Jackson followed a few minutes later, and then there was an interval of ten minutes before another car materialized, but it was the head of a procession. By 4:30 the majority of the cars were in the control, waiting to be checked out. They are under lock and key to-night, guarded by special watchmen.

Following is the schedule, showing the distances and time allowances for the first day:

	Distance	Total Distance	TIME
Harrisburg to Lebanon	26.4	26.4	1:20:00
Lebanon to Reading	29.8	56.2	1:30:00
Reading to Allentown	37	93.2	1:50:00
Allentown to Easton	23	116.2	1:10:00
Easton to Doylestown	32.4	148.6	1:35:00
Doylestown to Philadelphia	26.1	174.7	1:25:00

The controls for the first day were established at the *Patriot* office, Harrisburg; the Eagle House, Lebanon; Mansion House, Reading; Allen House, Allentown; Soldiers' Monument, Easton; Monument House, Doylestown, and the White garage, Philadelphia.

Makers Considered Run Most Important.

That the manufacturers were "hep" to the advertising value of a win in this run was manifest by the array of crack drivers who lined up for the contest. In Class A there were Walter White; Arthur Kumpf, who drove Herbert F. Rawll's Pierce Great Arrow, and won his spurs in last year's Glidden, being the youngest driver on that tour, and Robert Morton, who won the Philadelphia-Savannah race in his Pullman against the Studebaker. White, Kumpf, and Morton were the three double-prize drivers. "Bob" Shirk, who drove the Stoddard-Dayton, has registered many wins. Charlie Fleming came on from the Tarrytown factory to drive Andrew Redmond's Maxwell in Class B. Harry Croninger, general manager of the Pennsylvania Automobile Company, drove his Pennsylvania in Class C. A. H. Bitner, a Rambler crack, who scores frequently, was at the wheel of one of the Ramblers in the same class.

The rules provided for four classes—A, touring cars catalogued at \$2,250 and over; B, touring cars under \$2,250; C, runabouts catalogued at \$2,000 and over; D, runabouts under \$2,000.

An interesting feature of the run was the fierce fight in Class A to win last year's cup, which was held up by the committee

owing to the four clean scorers being unable to come to an agreement as to its final disposition. It will be recalled that the contest committee on that occasion decided to have the run-off take place this year, and all four promised to enter. All but one did so—Walter White's White steamer, E. G. Irvin's Pullman, and Herbert F. Rawll's Pierce Great Arrow showing up at the start, the Thomas of S. K. Hamburger being the only absentee of the quartet, he having waived his claim to the cup.

The official cars made quite a respectable show by themselves. There were no less than eight of them, including Referee R. H. Johnston's White; O. C. Robertson's White, pilot; H. P. Young's Franklin, first patrol; H. M. Cumbler's Pullman, second patrol; Central Pennsylvania Automobile Company's Franklin, press; H. A. Moyer's Rambler, H. C. Wright's Maxwell, and the Harrisburg Automobile Company's Stanley steamer, officials' cars.

All the contestants were required to report at the Keystone Garage, Harrisburg, between 3 and 8 p. m., Sunday, where they were sealed and placed under guard until the start.

The Harrisburgers are boosting Beecroft as an up-to-the-handle technical committeeman. When he arrived at the State capital at 1 o'clock Sunday afternoon, he found that none of his confreres had reported. He didn't wait for them, but annexed a jumper and a pair of overalls and climbed in, over, around, through, and under every car turned in by a competitor, making note of all defects and shortcomings. He was on the job until long after midnight, the other committeemen having turned up later and helped him out a little. Up bright and early in the morning, he gave each car a supplementary examination, noting wheel alignments, listening to cylinder popping, and "getting on" to anything he may have overlooked the night before. Beecroft was surely a revelation to the Harrisburgers.

Details of the Second Day.

HARRISBURG, PA., May 5.—The conditions to-day were even better than yesterday, a bright sun, tempered by a cool breeze, making the sport more of a pleasure party. The schedule was a trifle fast for some of the smaller fellows, but unless in case of accident, the 20-miles-an-hour limit, on which it was based, proved not too severe.

When the twenty-four remaining cars checked out of the White garage in Philadelphia there was a great scurrying for gasoline, while the rapid clank of tire tools was evident on all sides. It was a case of rush, for all time consumed in these necessary operations came out of the seventy-five minutes allowed to cover the 22.2 miles to Norristown. The quick work of the contestants was marveled at by a crowd of several thousand persons, which had to be kept in place by the police.

Poor police arrangements were the cause of an accident in the Reading control to-day. Cars Nos. 1 and 3 were moving to the front to take the word. They were traveling at a gait not faster than 10 miles an hour when an eighty-year-old man, one of a crowd of a thousand or more which blocked the street in front of the Mansion House, was knocked down, and, it is said, seriously injured. The drivers, R. H. Hagerling and Chester Smith, were arrested, but later released when they put up a cash bond. Neither car had clean-scored yesterday and the mix-up with the authorities, which netted them disqualification according to the rules, did not affect their standing.

The Stoddard-Dayton entries, which created such a furor here last year, had extremely hard luck. The Class C car was put out yesterday by a smashed wheel, and to-day "Bob" Shirk could not get the motor going on the Class A entry. He fumed and sweated at the White garage for a trifle over an hour after being given the word, but when he got going he drove to such purpose that at Reading, sixty miles, he was only five minutes behind his schedule. The remaining controls he negotiated ahead of time.

Several clean scores of yesterday were eliminated to-day, chief among which was the Pierce Arrow, driven by Arthur Kumpf. Just after leaving Columbia the Arrow's differential broke, penalizing it both on road and technical bases, and leaving the White sole clean-scorer in the triangular fight for the 1907 cup. Every-



J. A. Kline's Pullman, Which Scored in Big Runabouts.

body was pulling for the Arrow, for it carried the only lady on the run—Miss Anita Baker, of Harrisburg.

No. 23, S. Thorley's Class B Cadillac, went into the road penalty column through the medium of a broken spring. No. 2, J. S. Trego's Jackson, lost its "o" when the ring locking its left rear tire snapped and went flying into the field at the side of the road. Trego sent back eleven miles to Philadelphia for a new one and came in through the rain long after the officials had gone to supper. A. A. Jones' little Ford developed battery troubles while yet within the Philadelphia limits, and lost an hour ere a 'phone message brought him relief. He "beat it" in pursuit of the run after getting things straightened out, and reported at the finish five minutes ahead of time.

E. G. Irvin's big Class C. Pullman, No. 4, which was the first car into every control on both days, and had a clean road score all but made, fell from grace ten miles from the home stake. The hose connecting the water jacket and cooler slipped off, and the engine began to heat up. To get at the trouble it became necessary to break the seal and raise the bonnet.

The mix-up yesterday at Easton over the checker having ordered four of the contestants off before their scheduled time was ignored by the committee, and the demerits tacked on the Stoddard-Dayton for opening the hood to oil the cylinders were removed. The schedule showing second day's run follows:

	Dist.	Total Dist.	Time
Philadelphia to Norristown.....	22.2		1:15
Norristown to Reading.....	37.8	60	1:45
Reading to Lancaster.....	33.6	93.6	1:35
Lancaster to Mount Joy.....	25.1	118.7	1:15
Mount Joy to Harrisburg.....	24	142.7	1:10

The intermediate controls were at the Hotel Montgomery, Norristown; Mansion House, Reading; County National Bank, Lancaster, and Washington House, Mount Joy.



Thomas Flyer, Second in Big Touring Car Class.

A. A. A. TOUR PATHFINDER ON THE WAY

BUFFALO, May 4.—The pathfinder in the annual endurance contest of the American Automobile Association for Glidden trophy and Hower trophy for runabouts left Buffalo last Friday to blaze the trail between Buffalo and Saratoga Springs, after the roundabout journey which will cover the 1908 route. The machine is a 50-horsepower Premier, and carried this inscription on the hood, "Official Pathfinder 1908, A. A. A. Tour." When the car left this city it carried Dai H. Lewis, secretary of



Official A. A. A. Premier Pathfinder Leaving Buffalo.

the touring board, who is the official mapper; Ray McNamara, driver; Leon M. Bradley, of the A. M. C. M. A., and photographer Lazarnick.

Mr. Lewis said he expected to have the route completely planned within three weeks. He anticipates some rough places, but is of the opinion that this year's route will not call for so many severe trials as have bothered the drivers in the Glidden tours of the past. It is the expectation that some better roads will be met. Secretary Lewis' car will be the confetti car to

head the tour, which will start from this city July 9. Mr. Lewis achieved an excellent reputation in this capacity last year.

Pathfinders Sidestep Philadelphia.

PITTSBURG, May 4.—Secretary Dai H. Lewis, of the A. A. A. Touring Board, and his associate pathfinders, have completed their task of laying out the route of the annual reliability test from Buffalo as far as this city. They have tarried here several days, wrestling with the problem of how to include Philadelphia in the route and at the same time cut out from the itinerary every foot of the unfriendly soil of New Jersey. The pathfinders have so far proved unequal to the solution of the problem, and have practically determined to give the City of Brotherly Love the go-by. Accordingly, they propose to lay their course to Bedford Springs, via Export and Blairsville, which will cut out the run over the National turnpike by way of Greensburg, originally contemplated. From Bedford Springs, they plan to go to Harrisburg, and then cut across Northeastern Pennsylvania to Albany, then down the east bank of the Hudson river to New York City. From New York, it is the intention to partially retrace their tracks, and strike east into New England, to Boston, whence they will reach the terminus of the run at Saratoga, touring a part of the White Mountain district en route.

[The pathfinders should do a lot of figuring, and think many more times than twice, before sidestepping Philadelphia, one of the greatest automobile centers in the country, and the home of one of the largest and most loyal A. A. A. clubs. R. H. Johnston recently laid out a two-days' run of 225 miles between Philadelphia and New York, which took in the Delaware Water Gap, and dodged New Jersey utterly. Following this route, there would be a ninety-mile run to the Gap, where three big hotels would afford accommodation over night. This would leave for the morrow a 135-mile run to New York by way of Port Jervis and the ferry to Tarrytown at Nyack.—Ed.]

A. M. C. M. A. MAY JOIN CHICAGO CLUB IN SHOW.

CHICAGO, May 4.—The board of managers of the Chicago Automobile Club will meet Thursday to consider a letter from Alfred Reeves, general manager of the American Motor Car Manufacturers' Association, in which the writer intimates that the independents would not be at all averse to joining forces with the local clubs and promoting a second big show in Chicago next winter. Mr. Reeves asks the club what it could furnish in the buildings line, and adds there is little likelihood of the traveling show being run in the fall because of lack of time.

STRAIGHTAWAY LONG ISLAND RACING.

There is every promise of a big and noteworthy meet evolving from the straightaway time trials to be run June 5 on Hillside avenue, Jamaica, Long Island, in connection with the subway opening celebration. The three-mile course will be oiled, fenced, and guarded by police. The contests, which will all be speed trials, will begin at 1 o'clock and be preceded by an automobile parade starting two hours earlier.

The meet will be in charge of the automobile race committee of the Long Island subway celebration committee, of which John Niederstein, County Clerk for Queens, is chairman. The secretary of the committee is Joseph M. Gray, Jamaica, and the assistant secretary is Fred J. Wagner, 29 West Forty-second street, New York, who will have charge of entries and other general work in connection with the event. The race committee will have the assistance of the contest committee of the Long Island Automobile Club, which is made up of A. R. Pardington, chairman; F. D. Bandell, C. G. Arnold, and Russell A. Field, secretary.

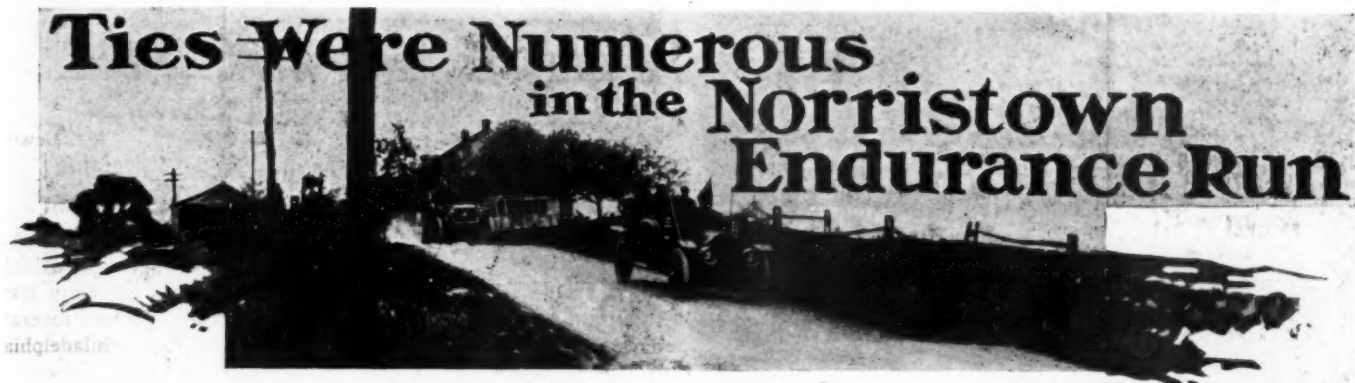
WOMEN TO BE TRANSCONTINENTALISTS.

There have been all kinds of transcontinental auto trips in the past few years, but it has remained for Mrs. E. E. Teape and Mrs. Vera McKelvie, her daughter, of Sand Point, Idaho, to be the first women to undertake the 4,000 miles intervening between Portland, Me., and Portland, Ore. They will leave Portland, Me., May 14, unhampered by assistants or luggage other than the necessary wearing apparel, and will make the trip with a Waltham-Orient by easy stages, going via Boston, Albany, Buffalo, Chicago, Des Moines, Omaha, Cheyenne, Salt Lake City, Ogden, Boise, and Baker City to Portland.

Mrs. Teape is now in New York City, arranging for the details of this longest trip ever undertaken by women autoists, and is quite confident that she and her daughter will not only make the trip successfully, but she has mapped out a schedule which should land them on the Pacific Coast at the end of eight weeks. This is considered remarkable, in view of the difficulties encountered by the New York-Paris contestants, though the women drivers will not be hampered by snow and ice. But that Mrs. Teape knows the country and how to cover it, is evident from the fact that she drove a 4-horsepower Waltham buckboard from Chicago to Denver last year in two weeks.

"I am enthusiastic regarding the trip," said Mrs. Teape, when seen at her hotel, "and I feel sure we can make it successfully. I realize the difficulties that two women may encounter, but we have always lived in the West and have plenty of confidence in our ability to overcome every one of the trials and obstacles that may beset us on the long trip. We shall not be bothered with extra equipment or baggage to hamper us, for, as some one has very wisely said, 'the greatest hampers to motorists are the hampers they carry with them.'"

Ties Were Numerous in the Norristown Endurance Run



Archie Hughes and His General Utility Pierce Great Arrow Showing the Way, Followed by J. E. Mountain's Clean Score Winton.

NORRISTOWN, PA., May 2.—Nearly 50 per cent. of clean-score cars—15 out of 32 official starters—tells the story of last Tuesday's initial endurance run of the Norristown Automobile Club. The road conditions were ideal and the schedule a trifle too easy for a vital test of the relative merits of the cream of the American automobile industry. Yet the very ease of the going was an inducement to speed which subjected all the cars to a severe pounding over the thank-you-ma'am roads of Montgomery and Lancaster counties. That such a large proportion came through without a semblance of a cause for the imposition of demerits, speaks volumes for the sturdiness of the American product. The redundancy of clean scores proved a thorn in the sides of the contest committee, which, at a meeting Friday night to consider the situation, at which the bulk of the clean-score entrants were present, it was decided not to have a run-off, as originally intended, but to melt down the handsome cup and strike off medals, to be given to each of the successful entrants and drivers.

The contest committee tried a scheme to block the usual piling up process at controls, and it worked like a charm. They adopted a rule which read: "Between checking stations each car may stop for a total elapsed time of five minutes, and no more, without penalization, provided no repairs or adjustments of any kind whatsoever (except replenishment of supplies) are made during the elapsed time." The result was that each driver had to have a coach, who, watch in hand, hauled him up when he neared a control ahead of time. It was a novel sight to see a dozen or more cars loafing along in an effort to consume time. As a result most of the cars came up to the mark and were sent away again within a very few minutes, and at no control except that at Lancaster were more than three or four cars to be seen at any one time. At the last-mentioned place the schedule called for a two-hour dinner stop, the first car being sent away on the afternoon lap at 1 o'clock sharp.

Some other novelties in the rules were those allowing but one man at a time on a repair job; prohibiting the stopping of motors at intermediate controls (excepting the dinner stop); and the covering and sealing of speedometers. Checking stations were established at the start and finish at the Hotel Montgomery, Norristown; Stephen House, Coatesville; Wheatland House, Lancaster; Mansion House, Reading, and at the Schuler House, Pottstown.

The route led through the Pennsylvania Dunkard country, and, when the cars began to skin through a town, the brethren and sisters were prop-

erly excited, and knocked off work to a man and woman until the last car had passed. And perhaps some of those sanctimonious-looking brothers aren't motor-wise! It was really startling to hear the bunch at Ephrata shout out: "Here comes a Pullman!" "There's a Pierce Arrow!" "That one that just passed was a Pope-Toledo!" It's safe betting that not a Dunkard in the entire section owns a car, but they know 'em when they see 'em just the same.

The press people had the time of their lives. They were consigned to the care of Archie Hughes, of Glidden tour fame, who kindly offered the services of himself and his big Pierce Great Arrow Six to the committee. Starting from Norristown among the last, Archie took upon himself the task of Good Samaritan, first-aid-to-the-injured, and general all-around errand boy. When the driver of car No. 1 was put down and out by a side-swipe from No. 3 while engaged in fixing a puncture, Hughes was on the job instant, and, after helping to get the injured man on his car again, he ran back to the railroad station to pick up a member of No. 1's party, who had gone to telephone for a physician. Articles dropped on the road by the hurrying contestants were retrieved by the press contingent, who readily entered into the spirit of the self-sacrificing game. When No. 5's commutator went to the bad, Archie happened along a few minutes later, and, after helping to fix the stalled car comfortably for the night, he piled the careless folk in among the pressmen's legs and brought them home. And, notwithstanding the numerous self-imposed delays, all the controls were negotiated by the Pierce Arrow well within the official schedule.

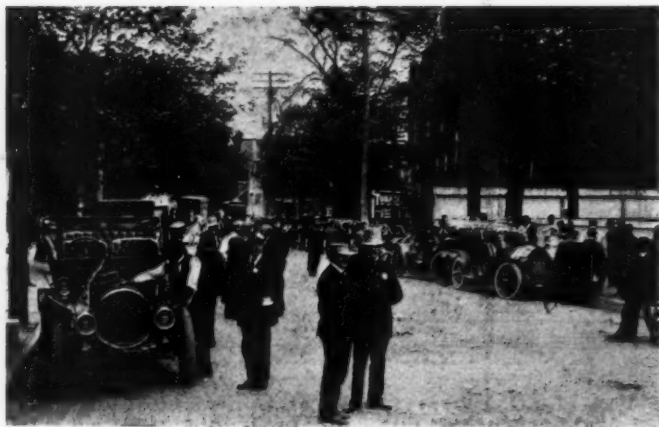
Of course, there were hard-luck stories. One of the most

OFFICIAL TABULATED RESULTS OF THE NORRISTOWN ENDURANCE RUN.

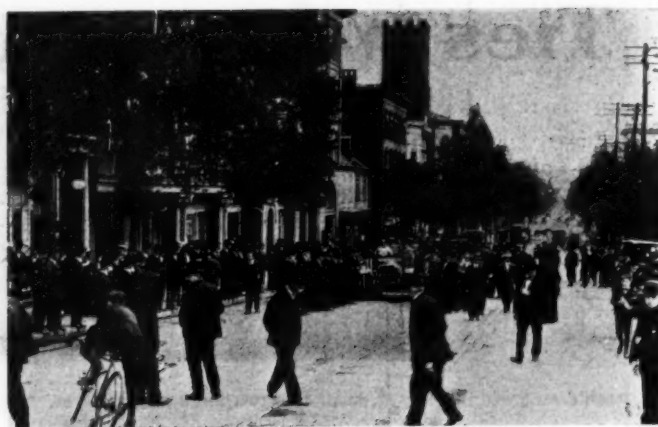
No.	Car and Model	H.P.	Entrant	Driver	Penalties		
					Road	Mech.	Total
2	Maxwell, 1908 D.....	28	Kelsey Motor Car Co.	W. M. David.....	0	0	0
6	Reo, 1908 A.....	20	D. F. Templeton, Jr.	D. F. Templeton.....	0	0	0
8	Cadillac, 1907.....	30	J. Elwood Lee.....	J. Elwood Lee.....	0	0	0
9	Mitchell, 1908 H.....	20	B. F. Stritzinger.....	B. F. Stritzinger.....	0	0	0
10	Buick, 1908 F.....	22	Charles W. Mann.....	C. W. Mann.....	0	0	0
11	Stoddard-Dayton, 1907 F.	35	F. B. Wildman.....	F. B. Wildman.....	0	0	0
14	Maxwell, 1906.....	40	Kelsey Motor Car Co.	W. C. Longstreth.....	0	0	0
17	Reo, 1908 A.....	20	H. A. Wilson.....	J. A. Beldeman.....	0	0	0
20	Winton, 1906 K.....	30	J. E. Mountain.....	J. E. Mountain.....	0	0	0
21	Mitchell, 1908 H.....	20	R. A. Jackson.....	R. A. Jackson.....	0	0	0
26	Ford, 1908.....	16	Ford Motor Co.....	Jos. F. Graham.....	0	0	0
28	Rambler, 1908, 34.....	32	T. B. Jeffery & Co.	A. H. Bitner.....	0	0	0
29	Rambler, 1908, 34.....	32	Brown Auto Top Co.	Ira L. Brown.....	0	0	0
35	Premier, 1908.....	30	Norris City Garage.....	R. F. McNamara.....	0	0	0
36	Apperson, 1908.....	30	Phila. Auto Co.....	E. C. Benson.....	0	0	0
16	Maxwell, 1908 LC.....	14	Kelsey Motor Car Co.	J. R. Lott.....	1	0	1
32	Buick, 1908 S.....	26	E. H. Lewis.....	E. H. Lewis.....	0	3	3
22	Mitchell, 1908 G.....	20	Walter Cram.....	Walter Cram.....	6	0	6
3	Packard, 1908.....	30	Mrs. M. S. Lees.....	Van Peacock.....	11	0	11
12	Locomobile, 1905 E.....	20	Jos. R. Coulston.....	J. R. Coulston.....	0	11	11
24	Mitchell, 1908 I.....	35	Walter Cram.....	H. Greenwalt.....	13	0	13
33	Pope-Toledo, 1906.....	35	George L. Taubel.....	G. L. Taubel.....	0	14	14
31	Pennsylvania, 1908 C.....	50	H. S. Stillwagon.....	R. H. Croninger.....	16	0	16
1	Crawford, 1906.....	28	F. M. Jaquith.....	F. M. Jaquith.....	19	10	29
15	Maxwell, 1907 RL.....	14	Kelsey Motor Car Co.	W. P. David.....	10	19	29
18	†Pierce Great Arrow, 1907.	45	R. V. Hoy.....	P. V. Hoy.....	53	0	53
34	National, 1905.....	30	Christopher Cox.....	Harry C. Cox.....	181	10	191
5	Franklin, 1905 E.....	12	S. E. Ballard.....	S. E. Ballard.....	Did Not Finish		
25	Reo, 1907 A.....	16	F. Leichthammer.....	F. Leichthammer.....	"	"	"
27	Crawford, 1908 D.....	40	T. M. Twining.....	T. W. Twining.....	"	"	"
30	Acme, 1908.....	30	John L. Schull.....	Mallin Leinan.....	"	"	"

*Originally returned clean-score, but was protested for stopping motor after accident with driver of No. 1. Protest sustained.

†Excessive road penalty due to observer's misunderstanding of rules.



At the Lancaster Control, in Front of the Wheatland House.



The Stop at the Official Control, Mansion House, Reading.

heart-breaking experiences was that of S. E. Ballard, who cleaned his Franklin-12 till almost within sight of home, when his commutator went to the bad, and the car had to be abandoned. R. A. Jackson, who drove No. 21, a Mitchell, dropped his license tag in the road, and suffered two demerits when he stopped his car to rescue it. They were, however, lifted afterward by the committee. While entering West Reading, Matin

Leinan, driving No. 30, a 30-horsepower Acme, skidded at a sharp turn and plunged up the bank into a three-rail fence, breaking a front wheel off clean. Thus another clean score went a-glimmering. Reading is the Acme's home town, however, and a 'phone message soon brought assistance from the factory, and the wrecked car was towed there and repaired. It resumed its journey at 6 o'clock and reported at the finish about 8 o'clock.

DE DION SAID TO HAVE HAD ENOUGH OF ROUND-THE-WORLD

ACCORDING to a cable from Paris to the *New York Times*, the only French car now remaining in the New York-Paris contest will probably be withdrawn on its arrival at Vladivostok, instead of continuing through Siberia, in accordance with the recent change of plans. This is the De Dion, which is now in Japan, en route to Vladivostok, and it is understood that it will not continue the race from that point. A declaration is expected to this effect from Marquis De Dion. This will leave the Thomas, Züst, and Protos to continue across Siberia. As things stand at present, the French and Italian cars are in Japan and are expected to reach Vladivostok this week; the Thomas is on the *Shawmut*, due to arrive at Yokohama May 8, and will probably reach Vladivostok May 12 or 13, while the German Protos

car is on the *General Logan*, bound direct for Vladivostok, and is expected to reach there on or before May 15.

It is expected that a time allowance plan will be worked out in order that the three cars in question may continue the race. The Thomas, which will be in charge of George Schuster, will be allowed the time it led the Züst when it reached Seattle, the furthest point mutually reached by the two cars on the original route. It is understood that the Protos will not be disqualified as the result of having been shipped from Ogden to Seattle, but will be handicapped the amount it was behind the Thomas at Ogden, as well as the time consumed in running from Ogden to San Francisco by the latter. No official decision has been announced as yet, but it is thought that this step will be taken.

AUTO SPORT TO AND IN THE DELAWARE GAP

PHILADELPHIA, May 3.—The *Public Ledger* of this city is interested in a 'four days' auto carnival which will be held in the Pocono region during the last week in June. To carry out the project an organization known as the Monroe County Automobile Association has been formed, with Dr. C. M. Brownell as president and A. F. Everitt, of Stroudsburg, Pa., as secretary. The object of the carnival is the exploiting of that beautiful mountain region with a view of attracting there the automobile element, not alone of Philadelphia, but of New York as well. Certainly there are no more charming spots within five hours' ride of either city than the Pocono region affords; nor better roads; nor better nor more numerous hotels.

To attract the denizens of the big cities, the new association has proposed this four days' carnival, which will begin with a sealed hood reliability run, starting from New York and Philadelphia simultaneously, and winding up at Stroudsburg. The second day will be taken up with a hill climb for numerous classes over a stiffish hill the committee has in mind overlooking the picturesque Delaware Water Gap. For the third day there will be short distance climb trials over a perfect stretch of road near Mount Pocono, with a mile for getting up speed and an equal

length of road beyond the finish—a bit of road which, given the machines, will produce world's records. A gymkhana, with all the stunts such affairs bring forth, will make up the final day's program. This will be held on a half-mile track outside of Stroudsburg, which town will be during the week the center whence the visitors will radiate to get to the spots where the various events are to be held.

Allied with the Pennsylvania Motor Federation, and hence with the A. A. A., the Poconoers will do everything officially and up to the handle. Committees are already at work, support has been assured, many factory people and agency managers have been interested already, and prospects seem good for a most successful carnival.

WILKES-BARRE CLUB POSTING SIGNS.

WILKES-BARRE, PA., May 4.—There are so many winding roads around this city, and so few of them are familiar to visiting motorists that the Wilkes-Barre Automobile Club has just undertaken the task of marking them with sign posts within a radius of fifty miles. Both directions and distances will be given.



Thomas-Forty Trio of Clean-score Performers in Detroit Trade Association's 450-mile Endurance Run.

THIRTEEN CLEAN SCORES IN DETROIT'S THREE-DAY RUN

DETROIT, May 4.—With the three days' endurance run just completed still fresh in mind, the Detroit Automobile Dealers' Association is seriously considering holding a non-stop contest over the same course in the near future. Enthusiasm runs high among those who took part in the endurance run, nearly, if not all of whom would be entrants in the event of a non-stop race. Other well-known drivers have expressed a willingness to enter, and the success of such an undertaking seems assured.

Last week's three-day gruelling contest provided some good sport, and likewise proved a revelation in several respects. The course was triangular, with Saginaw as the first day's destination, Kalamazoo the second, and the return to Detroit occupying the third, the entire distance traversed being 419 miles. Thirty-two cars, ranging all the way from a Brush runabout and a single-cylinder Cadillac up to the ponderous six-cylinder, were entered, and of this number thirteen finished with a perfect score, four others having less than ten points marked against them. Not the least satisfactory feature of the contest was the showing made by the light cars. The absence of perfect scores in this class does not accurately reflect conditions, penalization in nearly every instance being clearly traceable to the fault of drivers and not to mechanical defects. As was expected, many of the heavy cars romped through the course with time to spare, although at numerous points careful driving was necessary.

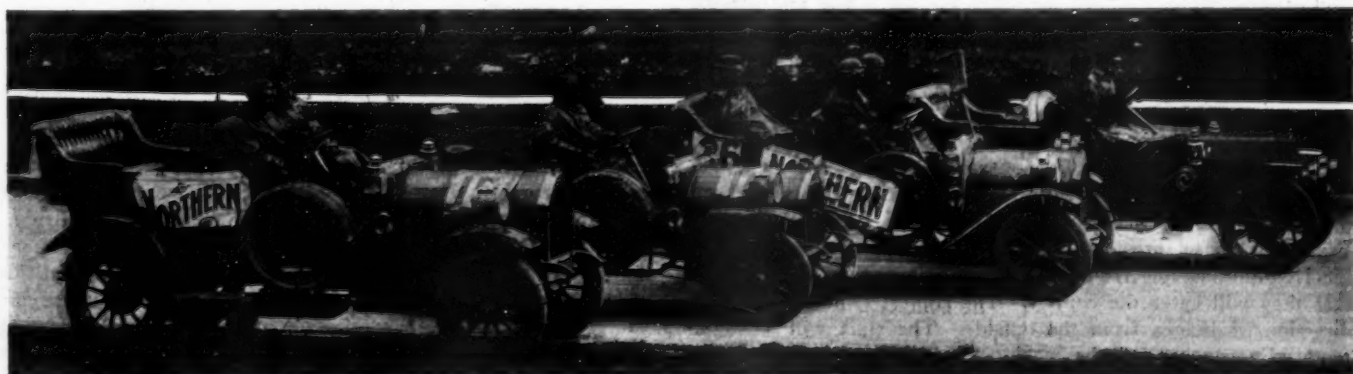
The roads in spots were abominable, and rain and snow, accompanied by a biting wind, added to the general discomfort. West of Saginaw fifteen miles of the worst roads imaginable were encountered, and here numerous penalizations occurred. A Cadillac touring car, while leading the procession through a quagmire, with mud and water hub deep, suddenly struck a buried tree lying horizontally across the road. After a struggle, the front wheels were forced over this, only to strike another log. Then a third was encountered and surmounted, but a buried stump

standing upright proved the undoing of the car so far as a perfect score was concerned. As the car plunged into the mud after hurdling one of these logs one of the parallel steering rods hit squarely on top of the stump, being bent out of all shape, and necessitating putting in a new one. With water five feet deep on either side, a long string of cars was held up for an hour while repairs were made.

The incident furnished a little excitement that was not on the regular program, the Thomas "Snowbird" making the course on high gear as a non-contestant, deciding to take to the railroad track and avoid delay. Hardly had the track been gained when a passenger train rushed down from the rear. For a mile there was a lively race between the steam and motor cars, the "Snowbird" reaching a crossing and safety just a nose ahead of the locomotive.

A Cadillac runabout gave an exhibition of running power that was unique. On the second day out it struck an imbedded stone, tearing out both brakes and putting the low gears out of commission. Then followed a performance that would put a crab to shame. Every time a hill was encountered the car was turned around and backed to the top, made another turn and continued on its course. The absence of brakes made this a ticklish proposition, but it was safely accomplished a dozen times, the car finishing with a score of 995 points.

If it answered no other purpose, the endurance run would have been worth while because of the boost given the good roads movement. Much of the course was good, but there were long stretches where the highways were rendered well nigh impassable by spring rains, and where a course had to be picked through mire in many cases hub deep. Farmers along the road displayed a keen interest in the event, and were, as a rule, friendly, one exception being a weazened old ruralite who, armed with an ancient shotgun, mounted the fence and announced his determination of shooting the first man who killed one of his chickens.



Northern Participants in Detroit Endurance Run—Two Were Two-cylinders and One a Four-cylinder.

Three opportunities were afforded, but the old man proved a poor marksman, and the motorists escaped unscathed.

Owing to the number of perfect scores, the silver loving cup offered will remain in the possession of the Detroit Automobile Dealers' Association, the names of those with perfect scores being engraved thereon. The entries and points scored are as follows:

No.	Car	Driver	Points
8	Franklin	Davis	1,000
9	Thomas	Grant	1,000
14	Peerless	Bemb	1,000
15	Northern	Chapin (E. J.)	1,000
19	Maxwell	Kelsey	1,000
20	Thomas	Mochesky	1,000
23	White	Sheridan	1,000
26	Northern	House	1,000
27	Pierce-Arrow	Day	1,000
28	Oldsmobile	Aubel	1,000
30	Stoddard-Dayton	Lane	1,000
31	Thomas	Lorimer	1,000
32	Oldsmobile	Crum	1,000
5	Cadillac	White	999
16	Northern	Chapin (E. H.)	999
11	Stevens-Duryea	Schuffield	996
29	Cadillac	McMullen	995
22	Cadillac	Lemmer	992
12	Ford	Scott	989
21	Welch	Neumann	989
3	Pope-Hartford	Houston	986
13	Stevens-Duryea	Young	981
24	Ford	Cunningham	947
4	Cadillac	Garland	939
7	Brush	Mandell	813
6	Cadillac	Miloch	725
17	Maxwell	Bleasdale	688
25	Jackson	Schieffer	618
18	Mitchell	Gilmour	464
1	Jackson	Siedler	Disq.
2	Brush	Loddell	Out
10	Jackson	McCalmount	Out

FIVE MILE SPRINTS ONLY AT BOSTON.

BOSTON, May 5.—Preliminary announcement of the events to be contested at the annual Memorial Day meet of the Bay State Automobile Association, to be held at Readville track, gives promise of some interesting sport. With one exception the races are all at five miles, it being the idea of the committee to provide snappy racing with close finishes. There are seven events in all, five for automobiles and two for motorcycles. The automobile events are as follows:

1. Five miles, open to stock gasoline touring cars, from 24.1 to 40 horsepower. 2. Five miles, open to stock gasoline touring cars from 40.1 to 60 horsepower. 3. Five miles, open to all gasoline runabouts irrespective of horsepower. 4. Twenty miles, open to stripped stock chasses. 5. Five-mile handicap.

The motorcycle events are: 1. Five miles, open to single-cylinder machines. 2. Five miles, free-for-all.

The committee considered the question of holding a twenty-four-hour race or some long-drawn-out contest, but decided that a more successful meeting could be held if the events were made short.

S. L. Haynes, of the Springfield Automobile Club, has been appointed referee by the racing committee, which consists of Harry W. Knights, Massachusetts member of the A. A. A. racing board; Charles E. Fay, manager of the Ford branch, and John L. Snow, manager of the Peerless branch. The entry blanks are being prepared and will be sent out this coming week.

SEVENTEEN PERFECTLY SURVIVE MARYLAND ENDURANCE RUN

BALTIMORE, May 4.—The first sealed bonnet contest to be held in Maryland took place last Saturday, and seventeen of the thirty-four cars entered completed the trip with perfect scores. The owners of each of these cars will receive as prizes handsome silver cups from the Baltimore News, under whose auspices, together with the Automobile Club of Maryland and the Baltimore Dealers' Association, the contest was held. The route was from Baltimore to Hagerstown, through the Blue Ridge mountains and over the roughest roads within the State, and return, a distance of 147.8 miles. In order to have a perfect score, it was necessary for the cars to complete the trip within twelve hours, without making any repairs otherwise than to the tires.

The first car started promptly at 6:30 o'clock Saturday morning, and was followed by the other cars at intervals of one minute apart. The cars that did not finish within the scheduled time returned either with broken cranks, seals, springs, rods, axles, etc. The Packard-30, driven by W. E. Baker, had to make seven changes of tires, while the Thomas-40, driven by W. H. Gill, made two such changes. In making one of these changes in the mountains, while pulling a steep grade, the Thomas narrowly escaped colliding with the Oldsmobile, driven by A. L. McCormick, which stopped suddenly on the grade and started to descend the hill. A slight collision occurred between a Mary-

land-26 and a Thomas-60 car at Flint Station, on the Western Maryland railroad. One of them had made a wrong turn and was backing.

To make the task of the drivers more difficult, a heavy rain and windstorm broke over them on the return trip. The clouds were so heavy that the men could see but a short distance before them, while on the turns the cars skidded, and many accidents were narrowly averted. The route of the contest was from Baltimore to Westminster, to Taneytown, to Emmitsburg, to Lanz, to Foxville, to Cavetown, to Hagerstown, and then to Middletown, to Frederick, to New Market, to Ridgeville, to Ellicott City, to Baltimore. Cars with perfect scores were:

No. of Car	Name of Car	H.P.	Driver
6	Ford	15	R. F. Kaehler
7	Oldsmobile	35	A. L. McCormick
11	Thomas	40	H. W. Gill
14	Winton	48	T. C. Goodwin
15	Packard	30	H. Hardesty
16	Thomas	60	E. F. Coley
17	Welch	50	Kelly
20	Pierce-Arrow	40	D. A. Clark
24	White	30	Lee Tremblay
25	Packard	30	William Keyser
27	Royal Tourist	45	P. R. Reese, Jr.
31	Packard	30	W. E. Baker
32	Franklin	28	W. Graham Hall
33	Buick	22	"Jack" White
34	Cadillac	20	L. M. Foster
35	Locomobile	40	Florida
9	Autocar	12	B. F. Gooden

MINNEAPOLIS WILL HAVE 300-MILE RUN.

MINNEAPOLIS, MINN., May 4.—On May 29 and 30, the Minneapolis Automobile Club will hold a 300-mile endurance run under the rules of the American Automobile Association. Col. Frank M. Joyce, president of the Minnesota organization, has received notification from more than twenty-five auto owners that they will enter the contest. The contest will be under the direction of judges from the outside. The start will be made from Minneapolis and the machines will proceed to Mankato, Minn., and return, and then from Minneapolis to St. Cloud and return, the complete trip totalling 300 miles.

SOLDIERS TO GUARD BRIDGEPORT CLIMB.

BRIDGEPORT, CONN., May 4.—Details of the preparations for the annual Decoration Day climb up Sport Hill were made known and approved at a meeting of the Automobile Club of Bridgeport, held last week. A. L. Riker, who will be the referee, reported that there would surely be a big field of entries, and that he had received from Walter C. White a promise to be a contender with his White steamer, which won the recent free-for-all cup at Fort George. The course will be guarded by the Fourteenth Company, Coast Artillery Corps; C. N. G., under Capt. George E. Hans. Ten deputies will serve as signalmen.

HUNTING FOR THE ELUSIVE IGNITION CURRENT

By CHARLES B. HAYWARD.

IF a census of the automobile literature of the "How-and-What-to-Do" kind that has appeared since the beginning of the period when men who are neither mechanics nor electricians undertook to master the intricacies of the self-moving vehicle could be compiled, it is safe to say that it would show a great preponderance of advice on the subject of ignition troubles. Electricity has always formed one of the profoundest mysteries of everyday life to the man in the street, so that it is hardly to be wondered at that most of the "Helping Hand" contributions should deal with this subject. But as it is one of those things that cannot possibly be covered in less than a good sized volume, and as there are always new things to be learned about it and endless newcomers in the field of automobiling to learn them, the reason for making it a constantly recurring theme is plain.

Percentage of Ignition Trouble Is High.

As is the case with everything else, it is the little things that count. Seldom, indeed, is the average autoist held up on the road by a broken axle, a smashed frame, or anything of so serious a nature. Inability to start the motor suffices to cover a multitude of road troubles in a few words, and of this host more than half are directly traceable to the defection of some part of the ignition system of the car—usually of a trivial nature. Until he reaches the point where he begins to realize that this most vexatious of misfortunes to the novice—failure to start—does not necessarily imply anything seriously wrong, the newly-fledged autoist is apt to regard an involuntary stop as meaning anything from a broken part up to an utterly ruined motor. But with even a little experience comes appreciation of the fact that minor worries are vastly in the majority, and that a broken battery connection is just as certain a means of bringing a car to a stop as a broken connecting rod, and very much safer. In the earlier days of their automobiling education many are apt to fear troubles of the latter sort and to look for them apprehensively when the car decides that it has gone far enough for the time being, regardless of the desires of its owner.

Such mishaps are not alone of very rare occurrence, but when they do happen to fall to the lot of an unsuspecting driver, there is never the faintest doubt of the serious nature of the accident. In other cases, it is chiefly the doubt of just what may constitute the cause of the trouble that is most vexatious. As the driver of Teutonic origin put it, meanwhile scratching his head in a most perplexed manner, "*I don't find my shpark anywheres, and I have looked him all over.*" The relative importance of the trouble is trivial compared with the difficulty that is encountered in locating it. Experience has shown it to be harder to confine a high-tension current within proper limits than it is to prevent leaks in a high-pressure compressed air system, with the further difference that the electric leak is not often so obliging as to visibly, or audibly, reveal its presence.

Compiling a Breakdown Chart for Reference.

Many reference lists have been compiled for the aid of the trouble hunter, and a study of one of these statistical compilations of ailments will often prove of considerable assistance to a beginner. Their chief shortcoming is to be found in the fact that it is impossible to make any general set of recommendations apply to every case in particular, and, for that reason, the driver himself should see to it that he gets such things, and especially the order of their importance, well fixed in his mind, concerning his own car. I have often heard the question asked: "What goes wrong oftenest?" Applying this to the ignition system of a car, where of the usual battery and coil high-tension type, the enumeration might be started in the order of: first, timer; second, coil vibrators; third, wiring; fourth, spark plugs, and so on, this list presupposing that the battery is known to be in good con-

dition. In whatever order such a list be compiled, there can be little question but that the timer and vibrator will figure most prominently in it, and the degree of merit of each one of these devices will determine whether they are to rank first or second in the order of prominence as trouble makers.

To cite instances of ignition trouble that bother old hands for quite a few hours in their solution, would not be an extra difficult matter, but this is one that defied the combined efforts of several self-styled experts to unravel, and even then its solution was more or less of an accident. The chief difficulty usually lies in the fact that the symptoms are so misleading that one is quite certain they point to something other than what eventually is discovered to be at the root of the matter. This was the case in the instance under discussion which puzzled every one of a crew of five most sorely. First the motor came to a stop, and the manner in which it did so pointed to ignition trouble, for there is considerable to be learned from the action of the motor in this respect. Resort was had to the crank by one of the crew before any of the others could do any conclusive investigating, and the motor started on the first turn. It continued to run until every one of us had had a good opportunity to stretch and get comfortably settled back in the car, and then the motor gave up the ghost again.

Symptoms So Often Prove Misleading.

This action of the motor gave rise to a difference in opinion as to the cause, and the diagnosis of ignition trouble arrived at as a result of the manner of the first stop, was considerably shaken. "Looked as if there were an obstruction in the gasoline feed line and the fuel is only coming through in small quantities, not fast enough to keep the motor running steadily," ventured one.

"Loose contact somewhere," tried another, each one trying his hand at a slightly different diagnosis.

But it is one thing where the motor resists all attempts to start it by cranking, and quite another where it will yield to this treatment. Turning the motor over on the crank was rewarded with a fresh start practically every time, but the period for which the motor continued to run varied from a few minutes to half an hour. There was no telling when it would give up the ghost, and as the party was desirous of getting somewhere, the annoyance of having to go trouble-hunting every few miles, and sometimes every few minutes, was exasperating. It was only by finally assigning each man a duty, thus instituting a systematic search, that the trouble was finally remedied.

While one man cranked to start the motor, and stood there to repeat the performance should it stop, another watched the timer minus its cover, a third kept tab on the carbureter, and still a fourth watched the vibrators of the coils. After two or three short runs that revealed nothing, the motor got under way and began to run so steadily that the trouble seemed to have disappeared of its own accord.

Fortunately, the watcher at the timer stuck to his post and noticed that it came to a stop shortly before the motor did. Cleaning out the case by flushing it with gasoline revealed the fact that the contact, which was ordinarily held to the vertical shaft by means of a set screw, had become loose. The holding screw had backed out just enough to permit the shaft to pick up the contact at times and hold on to it for a little while, then letting go. As the motor was turned over slowly by hand the contact seldom failed to be picked up, which accounted for the easy starting of the motor, while speeding the latter up was most often responsible for dropping it again.

Why it continued to hold at times and utterly refused to stick at others is one of those mysteries that only the erratic action of a machine out of adjustment can account for. About three

turns of the screwdriver sufficed to remedy what had taken hours to find. Instances of this kind could be multiplied indefinitely, and probably there are few autoists who have not puzzled over an apparently mysterious source of trouble for a long while, only to discover ultimately that it was so simple as to be childish.

Ignition and Carbureter Faults Sometimes Similar.

It was only natural that in the foregoing case the trouble should have been confused with a stoppage of the fuel system, as the symptoms were very much similar to those that are apt to occur when the fuel line becomes partly stopped up and does not permit enough gasoline to pass to keep the motor running at its usual speed. As soon as it has been stopped a few minutes, sufficient filters past the obstruction to render a new start possible, and as soon as this fuel is exhausted, the motor stops again to await a new supply. The same thing might be said of the battery, where dry cells are used, as it is well known that

they will recuperate sufficiently to run a motor within a very short time, even though they may have appeared to be absolutely dead but a few minutes previous.

Plugging of the carbureter jet by means of some obstruction that did not stick tightly in the nozzle opening, but which at times was drawn up into it, and at others fell back into the tube, would have been productive of similar symptoms, and was looked for in the case in question, but without result. So also were hidden causes of some intermittent short-circuit, similarly investigated, as the vibration of the motor's running will often permit the trouble being caused by a bad place in the wiring to go unnoticed, by keeping it away from the part with which it is making contact at times, and at others forcing it into that relation.

Road shocks are also guilty of doing the same thing, though this form of trouble is rare on the modern car, owing to the care taken not to use a superfluous inch of high-tension cable, and to protect every part of it over the motor.

AMERICA SEEMS TO BE BUYING MORE FRENCH AUTOMOBILES

PARIS, May 1.—America continues to increase her imports of French automobiles, and Russia, Spain, Turkey, and Algeria buy more French cars than formerly, but this is not sufficient to prevent a serious drop in exports, as shown by official figures for January, February and March, just made public by the Customs and Finance Department.

The total French shrinkage is \$1,166,000 for the period under review, and of \$800,000 for the corresponding period of 1907. The figures given are for automobiles only, motorcycles and their parts and bicycles and parts being classed separately. A diminution amounting to almost \$600,000 a month is of such a serious nature as to cause some alarm among French automobile constructors. It is generally recognized that England is not likely to very greatly increase its imports, the tendency indeed being to establish branches of French factories in that country, and although American business has increased of late those acquainted with international affairs know that only the limited high-class business can be held by France.

Some authorities are rather pessimistic over the figures and predict a loss of \$6,000,000 on the year compared with the trade of 1907. Such is not likely to be the case, however, and wrong conclusions will be arrived at by taking January, February, and March as an indication of the trade of the entire year. The closing months of 1907 were exceptionally bad and to judge from present indications there will be an increase in business this year which will bring the total figures within reasonable distance of those of last year. Certainly 1908 will not equal 1907, but there does not appear to be any real reason why it should not be as successful as 1906.

Relief from the gradual shrinkage of French exports is generally considered to lie in the encouragement of trade with countries that have up to the present paid little attention to the automobile. France is making strong efforts, for instance, to

capture the Russian market, is striving to extend business in Algeria and Spain, and has an eye on the South American republics. Very much, too, might be done in the development of the home trade, France having a smaller number of automobiles in use than either England or America.

In the following table, compiled from the official returns, the volume of French exports of automobiles for the months of January, February, and March, 1907 and 1908, are shown in comparative form. In addition, the two last columns show either the increase or decrease on the first quarter of 1908 compared with the corresponding period of 1907:

	1907	1908	Increase	Decrease
Great Britain	\$3,375,400	\$2,610,800	.....	\$764,600
United States	528,600	749,000	\$220,400	.....
Germany	675,800	463,400	.....	212,400
Belgium	665,400	252,400	.....	413,000
Argentine Republic. .	340,200	248,800	.....	91,400
Algeria	197,800	214,200	16,400	.....
Spain	109,200	155,400	46,200	.....
Brazil	194,800	133,200	.....	61,600
Russia	43,600	126,000	82,400	.....
Italy	269,000	108,800	.....	160,200
Switzerland	185,600	60,600	.....	125,000
Turkey	8,600	41,400	32,800	.....
Austria	35,600	13,400	.....	22,200
Other countries	1,007,800	784,600	.....	223,200
Total	\$7,637,400	\$5,962,000		

French imports of automobiles, motorcycles and bicycles show a slight increase for the first quarter of 1908, though the total is so slight that it is hardly worth considering. In January, February and March, 1906, France received foreign automobiles to the value of \$340,000; for the corresponding three months of 1907 the amount had dropped to \$326,200, and for the first quarter of the current year it had shrunk to \$273,000. Foreign motorcycles and parts were imported to the value of \$800 during the three months, compared with \$1,200 for the corresponding period twelve months earlier.

INDIANA IS BUYING AUTOS PLENTEOUSLY.

INDIANAPOLIS, IND., May 4.—There were 309 automobiles registered with the Secretary of State during April, the largest number in any one month since last July. This brings the total number of automobiles and motorcycles in the State to 5,734, of which about 200 are motorcycles.

A glance at the registrations indicates that by far the greater part of the business this year has been in low and medium-priced runabouts, with a fair representation of high-wheeled motor buggies. Quite a number of more expensive touring cars have been sold, however, and indications are that the 1908 season will be a record breaking one in Indiana.

WHERE FARMERS OWN THE AUTOS.

CRAWFORDSVILLE, IND.—This city will have its second annual automobile day on May 19, and several hundred visiting automobile owners from neighboring cities are expected to attend. A committee of business men has been successful in obtaining substantial cash contributions, which will be used as prizes for a number of events. There will be an automobile parade, followed by exhibitions of driving and novelty races, for which a fine list of attractive prizes are offered.

Crawfordsville is in the center of a rich farming district, the majority of automobiles owned in the county belong to the agricultural portion of the population.

LETTERS INTERESTING AND INSTRUCTIVE

HOW CAN CYLINDERS BE GROUND BY HAND?

Editor THE AUTOMOBILE:

[1,342.]—I wish to inquire through your most valuable paper if you or any of our readers know of any way I can grind a pair of imperfect cylinders and get good compression. I bought a new air-cooled, double-opposed engine, 4x4-inch, and the cylinders did not have a very good compression from the start. I looked the piston and rings over and found they were in good shape and a good fit, but the cylinders are off just enough to leak very badly.

Now, the question is, can I, while running the engine on gasoline, use either rotten stone or tripoli by placing it in the pipes (which are large) leading from the oil cups to the cylinders? In this way the grinding material will be fed to the piston with the oil, and in this manner gradually grind the cylinders; but will it grind only on the top and make matters worse, or will it grind the tight places?

I have a valve grinding paste, made by Brown & Co., of Syracuse, N. Y., which is quite mild and is a fine polisher. I think it contains no emery. Would you think it better to use it? If the above method is not a good one, could you or some of our readers tell me of a simple plan to overcome this difficulty?

Would it be better to remove the cylinders and pistons and grind them by hand with emery? This would be quicker, and one could see how things were coming. And then the emery could be washed off, so as not to get into the engine proper. As the engine is now it heats badly. One of the pistons was fitted just a little too tight, so when it gets hot it expands to the extent of causing friction, and this makes it heat very quickly. Do you think that this will wear to a fit and not get so tight, or had I ought to have it dressed down a little smaller?

I will be very much obliged if some one can help me out in the above matter, so I will not be compelled to send the engine back to the factory to be rebored.

West Liberty, Ia.

V. R. LANE.

It looks as if your troubles were due to having tried to save money on the first cost of a motor by investing in a cheap one. However, if the only fault to be found is that one of the pistons is a little tight, no grinding should be required. Motors selling at a very low price are naturally not given that attention in the way of finishing and testing that those selling for a much higher figure are. What your motor needs would seem to be running-in. Couple it to some other source of power and flood it with oil. Then run it steadily at a comparatively slow speed to prevent heating, for two or three days, when it should be sufficiently run-in to do away with the difficulty. We doubt if attempting to grind the piston into the cylinder by means of an abrasive would be all that was desired, but if any of our readers have ever made use of such an expedient, or have any suggestions to offer along this line we should be pleased to hear from them.

WHAT IS THE CAUSE OF THIS OVERHEATING?

Editor THE AUTOMOBILE:

[1,343.]—Will you please tell me the probable cause of my engine overheating? My pump gives a good circulation, but the water in tank gets to boiling point after traveling two or three miles.

Jamaica, N. Y.

JOS. SYLVESTER.

Poor adjustment of the carbureter, which gives an over-rich mixture, is a very common cause of overheating, due to the fact that the charge continues to burn much longer than where it is of the proper proportions. It also develops a great deal more heat in burning, and a much greater proportion of this heat is necessarily absorbed by the cylinder walls owing to the greater length of time it takes to burn. Another cause of heating may be the fact that the fan belt is slipping, as some cars are so constituted that their motors will not run cool unless the fan, and, in fact, every other part of the cooling system, is working up to full efficiency.

Partial obstruction of the circulating pipes, or of the radiator, by deposits from the water employed for cooling, may also be cited as among the causes of overheating. The same thing applies to the jackets, which may be partly stopped up.

FROM AN ADMIRER OF LETTERS INTERESTING.

Editor THE AUTOMOBILE:

[1,344.]—Your department of "Letters Interesting and Instructive" is, to my mind, one of the most valuable features of your publication, and I would like to see ten pages of these letters instead of the three or four which usually appear. Do you limit the space of this department, or are correspondents few? Here are some questions on which I would be glad to hear from you and from the readers of this department.

I have a 1907 Pope-Hartford. After running it ten months, I recently dismantled the engine to tighten a slightly loose connecting rod, in doing which it became necessary to disconnect the magneto, the couplings of which were carefully marked before removal, as were also the terminals of all wires. There is no question that everything went back exactly as it was taken off. The timer was not disturbed. However, after connecting up, the engine refused to start, and was found to be firing with the valves open. Previous to dismantling it was firing from front to rear in the order 1, 3, 2, 4. After some useless experimenting, I took off all connections, and, regardless of former arrangement, commenced at the rear or No. 4 cylinder and wired up so that the engine now fires in the order 4, 2, 3, 1. The engine runs perfectly, but as the wiring terminals are all marked in accordance with the old arrangement, I know there will be trouble the first time the car goes into the shop. I would like to change back to the old order but do not know how. An alleged expert who looked at the wiring tells me that any other arrangement is impossible, and that the car could never have run when wired up as I know it to have been. It did run for ten months, however. What is the matter?

On account of rough and "wavy" roads, I have been thinking of equipping the car with shock absorbers, but am told by various chauffeurs that they are "very hard on the engine." None of them offer any explanation as to why such should be the case, nor as to just what they do to the engine. Is this a superstition or has it some foundation?

After carefully reading the discussions which have appeared recently regarding the merits of the four and six-cylinder engines, I am firmly convinced that while they are both all right, each is a little better than the other. But why does neither side say anything as to the cost of fuel consumed? Does, for instance, a six-cylinder engine consume more gasoline per horsepower-hour than a four-cylinder, and if so, why?

I want to add a motorcycle to my equipment, but notice only one make advertised in "The Automobile" and none in other similar periodicals. I suppose the other manufacturers are still in business, and would like to have catalogues and prices. Here is a chance for some one to make a sale.

H. J. BRYANT.

City of Mexico, Mex.

That there is no scarcity of material for this department will be evident from the number of correspondents who have written us post haste to point out an error made in a recent issue. This is also a certain indication of the widespread interest that is taken in these letters and the answers thereto. Hence lack of space is the sole reason for not publishing a greater number of letters weekly.

Regarding the trouble with your car, we find that you have the same habit of making assumptions that lies at the root of the trouble of most of our correspondents. You say "there is no question that everything went back exactly as it was taken off." If this could be proven to be the case, then there is something wrong, but doubtless you will find that it is an assumption of fact not supported by the reality. Your reference to the timer not having been disturbed, in connection with what you say about the magneto, is slightly ambiguous, particularly as you do not add whether you finally got the motor running right on the battery or the magneto. To remedy the difficulty take the magneto off again; take out the spark plug, or open the pet cock, and drop a piece of stiff wire through the hole of the first cylinder, so that the position of the piston may be learned. The valve covers should also be removed.

Turn the engine over by hand until the piston of the first cylinder is at the upper dead center, about to descend on a power stroke, which may be learned by watching the valves and the wire indicator mentioned. Take off the distributor

cover of the magneto and turn the shaft of the latter until the finger corresponding to terminal No. 1 is just making contact. Mesh the magneto pinion with its driving gear, and if they do not exactly engage one another a half tooth's movement forward or back to make them do so will be immaterial, as it will be compensated for by the advance lever. Try the motor with the magneto in this position, and if it does not give as good a result as can be expected disconnect again and move the magneto pinion one tooth forward or backward, according to whether advance or retardation is required, and try again. As the magneto is synchronized to the motor, getting it in step with the first cylinder, makes it so with the rest of the motor. The mistake you made in putting it on as described was in starting with the rear cylinder instead of the front.

We have never heard of this latest theory of the chauffeurs regarding the damage done to the engine by the shock absorbers, but were laboring under a very strong impression that quite the reverse was the case, as the use of a good shock absorber not only adds to the comfort of the passengers, but acts as a means of protection to both the motor and the entire transmission. It has this effect by checking the reflex action of the springs, which would otherwise bounce the body into the air after each obstruction taken at any speed, thus preventing the continued alignment of the transmission shafts and the crankshaft of the motor. It is evident that more or less extra strain is imposed upon them every time the various parts of the transmission are thrown out of line. The comfort of the drivers and mechanics in a great road race is not usually a matter that entrants are particular about, but few, if any, racing cars run without shock absorbers, simply for the purpose of saving the engine and transmission as much as possible.

Six-cylinder advocates maintain a discreet silence on the subject of fuel consumption, as it is a matter of common knowledge that "miles per gallon" decrease at a startlingly rapid pace with each addition to the size and number of the cylinders. Naturally the six-cylinder motor of an equivalent cubic capacity, or piston displacement, with a four consumes more fuel than the latter, owing to the extra parts to be moved, greater heat losses through cylinder walls, and other factors affecting its efficiency, and figuring this way naturally leads one back to the single-cylinder. The advantages of the six are usually conceded to compensate for the extra fuel required.

There are other motorcycle manufacturers in existence and there are also a number of agents for imported machines in this city, to whom we have given your name.

REGARDING THE ERRONEOUS DIAGRAM.

Editor THE AUTOMOBILE:

[1,344.]—In your answer to letter No. 1,319, regarding wiring cells for a single-cylinder motor, wish to say that I do not believe this diagram is quite correct, if I understand it right. As far as I can see, one wire is taken from the last carbon in each set to point No. 3 on the switch. It appears in the diagram that it would not make any difference whether you had a switch lever standing on points Nos. 1, 2, or 3. Supposing you have the switch lever standing on point No. 1, with the wiring as indicated in diagram, does it not appear to you that the current will pass through the wire from the carbon in set No. 2 through point No. 3 and further from point No. 3 to the carbon of set No. 1 and from there to the wire of point No. 1? Consequently, this would give a series of multiple connection on either one of the three switch points. If I am not correct I would be pleased to have you explain diagram further, as I think it would interest many of your readers.

Phillips, Wis.

ARTHUR BELJER.

You are quite right about the wiring diagram not being accurate when taken in connection with the explanation given, as it shows the cells permanently connected in series-multiple and, as is called attention to here by quite a number of subscribers other than yourself, the effect of this

would be that turning the switch to any one of the points would give the same result. It was inadvertently omitted to state that the expedient of making the connection to point 3 of the switch was not to be undertaken until the cells were no longer serviceable independently, but even at that there are modifications of the method of wiring which would render doing this much simpler and more convenient. These are called attention to by subscribers in this issue, as will be seen by the letters following. It is gratifying to note that such a number of the readers of Letters Interesting and Instructive were so quick to detect this error and call attention to it. The manner in which the error is pointed out and the necessary corrections called attention to in the foregoing, as well as the following letters, show that the average autoist's knowledge is no longer the limited commodity that it once was, and that it must be respected accordingly.

EXPERIENCE WITH CORK AND OIL "DOPE."

Editor THE AUTOMOBILE:

[1,345.]—Referring to your answer to inquiry No. 1,319, in the April 23 issue, beg to say that wiring a diagram as published will not permit using each set of batteries alternately, for the simple reason that the two sets are permanently connected in multiple by the wires running from the carbon terminals to point No. 3 on switch. Thus the two sets would discharge in parallel, no matter whether switch lever was on point Nos. 1, 2, or 3. The timer was not shown in the diagram, but, of course, this essential could be located at either end of the circuit, so that the current would reach the ground return through the timer shaft. In regard to the switch connections, I would suggest that Mr. Carpenter wire his two sets of cells in the usual way; that is, as shown in the diagram, with the exception of the wire between the carbon poles and point No. 3. Then he could use either set separately, and when the cells become weak, they could be used in multiple by slipping a thin strip of brass under the switch lever so as to bridge points Nos. 1 and 2, and at the same time connect them to the lever.

Referring to inquiry No. 1,321, would say that I have had some experience with "dopes" for silencing gears, which may be of some benefit to Mr. Hall. Last summer I experimented on a badly worn and very noisy planetary transmission in an Olds runabout. First I tried mixing boxwood, or "jewelers'" sawdust, with oil, but the sawdust being heavier than the oil, was thrown to the outside of the case, owing to centrifugal force, and was found tightly packed around the rim when the transmission was opened. Then I hit upon the idea of using cork filings, and this material gave excellent results. The mixture was prepared by filling old corks with a very coarse file or rasp. The filings were then screened through a piece of ordinary window screening, the coarse pieces being rejected. The fine filings were mixed with rather heavy cylinder oil in the proportion of about one part by volume of cork to two or three parts of oil. When this mixture was used in the transmission, the gears made hardly any noise at all. One filling would last for several hundred miles, or until the mixture had leaked out around the shaft. As the cork would float in the oil, there was no danger of its packing, and the fine particle adhering to the gear teeth acted like "cork inserts," filling up the spaces between the worn teeth. I would certainly recommend the "cork" treatment to any one troubled with noisy gears.

ALLAN W. PATTEE.

Monmouth, Ill.

ANOTHER SUBSCRIBER TAKES THE ISSUE.

Editor THE AUTOMOBILE:

[1,346.]—As a subscriber to your paper, I have always been an appreciative reader of your "Letters Interesting and Instructive." However, I beg at this time to take issue with you in regard to your reply and wiring diagram in answer to No. 1,319, in the issue of April 23. While I do not wish to infer that the editor does not know how to make a series, or series-multiple connection, still his statements are at least quite misleading, and his diagram incorrect.

The diagram, taken by itself, shows two sets of four batteries connected in series, with the carbon terminal of the upper set connected to terminal No. 1, the lower set to terminal No. 2 of a 3-point switch. Also the carbon terminal of each set to terminal No. 3 of the switch. This last mentioned connection makes a series-multiple connection of the batteries when the switch is on either point No. 1 or No. 2. The diagram shows all permanent connections (all lines being full, not broken), and the text does not even infer that the connections to point No. 3 are of a temporary nature, to be made only when the series-multiple connection is desired.

Why provide a three-point switch? Why not use a two-point

switch, and connect the carbon terminals with an ordinary battery connector when series-multiple connection is desired, or provide no switch at all if the coil box has a two-point switch, which it probably has in nearly all cases.

While I appreciate Mr. Carpenter asked for a battery wiring diagram for a single-cylinder motor, your reply was for the benefit of your subscribers, which a majority no doubt are more definitely interested in multiple-cylinder engines. The principal part of the diagram, i.e., up to and including the switch, applies equally as well to a two or four-cylinder as to a single-cylinder engine, still you do not intimate this. If the readers know little or nothing about connecting batteries, they would not know this, and if they understand connecting batteries your article is of no value to them. Please do not think me too critical, but I first noticed this article in "Motor Age" and considered making a reply. Later read it again in "The Automobile," and was again seized with the desire to reply to it. On comparing the two articles I find they have the same author.

W. A. YOUNG.

Muskegon, Mich.

HOW THE WIRING SHOULD HAVE BEEN DONE.

Editor THE AUTOMOBILE:

[1,347.]—A glance will show that your diagram for letter 1,319 is incorrect. Placing the switch lever on either 1, 2, or 3, will have the same effect, for the two sets are always connected in parallel, through point 3, and no movement of the switch lever can alter the connection. If, however, point 3 be omitted and a small extra switch be placed in the circuit connecting the two sets in parallel, then placing the master switch on either 1 or 2, with the extra switch closed, will give the use of the two sets in parallel, while if the extra switch be opened, the two sets may be used independently.

The same end is sometimes attained by omitting point 3 and its circuit, and making the switch lever wide enough to span both 1 and 2 at the same time. Then placing the switch at its central position would connect the two sets in parallel.

Allegheny, Pa.

MURRAY FAHNESTOCK.

WHY NOT USE A RATIONAL SIZED MOTOR?

Editor THE AUTOMOBILE:

[1,348.]—The general tendency of motor car design abroad is toward the smaller sized motor. While the roads of Europe are, as a general thing, much better than those in America, yet this in itself does not render possible the smaller sizes of motors, which are being used in fairly large cars over there. The fact that the foreign driver is much more willing to make frequent use of his gear shift has more to do with the problem than has good roads.

In America the demand seems to be that the relation of motor power to weight of car must be such that the machine will go romping up the steepest kind of a hill upon the high gear. As a result of this demand, American manufacturers are being forced to equip their cars with motors which cannot be operated economically upon any low or moderate road speed.

Not only is the first cost of the car increased by the necessity of building its component parts of such strength as to transmit the extreme power of the large motor, but any engineer will tell you that a large power plant cannot be operated economically when 90 per cent. of its work is done at about half of its possible capacity. In other words, it is wasteful of both gasoline and lubricating oil to operate a large motor under conditions where only about half of its possible power may be utilized except at rare intervals. Certainly, sooner or later, the American public will begin to realize, as have the foreign drivers, that it is much better to make use of the transmission which has been placed by the maker in the car for a purpose, than to demand a car with such motor equipment that it may be operated at all times without recourse to the intermediate gearing.

In an effort to meet the demand for a car which will climb any hill upon the high gear, the manufacturer is confronted by two possibilities, both equally bad. Upon the one hand he may equip the car with an abnormally large motor, and upon the other hand he may so reduce the gearing between the engine and the rear axle that the car may perform satisfactory hill climbing feats upon the high gear. In the first case, there will occur the greater first cost of the large motor and of the heavy driving gear rendered necessary by this large motor. To this may be added also the cost of maintenance, and the lack of efficiency under the ordinary road conditions.

In the second case, where the motor of a smaller, or perhaps more proper size, is geared down to such an extent that any kind of hill may be climbed upon the direct gear, it is very apparent that for ordinary driving upon the level road, and especially if this driving be at all fast, the motor will be required to have an extremely high rotative speed in relation to the number of revolutions per minute of the driving road wheels. This extremely high speed tends, of course, to shorten the life of the motor, to render adjustment of bearings and other parts more frequent, to increase

lubrication trouble, and to cause an unpleasant vibration to be felt by occupants of the car whether it is running or standing.

Would it not be much better to educate the American public along the line of European practice, building the motor car with an engine of moderate size and with a gearing between engine and drive wheels, which would insure to this motor a satisfactory rotative speed at the average driving speed of the ordinary operator? Such a construction would, of course, necessitate the use of the gear shift lever for hill work, but with the modern designs of gear shift this certainly cannot be looked upon as a serious hardship. Certain it is that it would be far more sensible and far preferable from the manufacturers' standpoint, were this done. This, of course, to say nothing of the money saved to the operator and owner, both in first cost and in operating expenses.

Moral: Don't be afraid to make use of your gear shift lever. Have your car geared at a proper road speed; such that upon the level your motor is not racing itself to death and upon the hill do not be afraid to shift into your second or your first speed, as may be required. You will find that your machine will stand up better, and that it will be in your service every day, instead of in the repair shop.

HOWARD E. COFFIN,

First Vice-Pres., E. R. Thomas Detroit Company.
Detroit, Mich.

FORD TROUBLES AND THE NEEDLE VALVE.

Editor THE AUTOMOBILE:

[1,349.]—Noting letter 1,324 and others in your "Letters Interesting and Instructive," recommending separation of gasoline tube and exhaust pipe as a remedy for Model N Ford troubles, will say that I think the idea good, as I have noted, though could never understand why, my Fords gave better power, when started up cold than when heated, which is, of course, contrary to theory and also to practice with other cars. But, from my experience and that of others of which I know I conclude the troubles inquired about, or the necessity of "tickling" or changing the needle valve every few miles, more or less, will not be remedied by the prescribed treatment.

I think we will necessarily have to go back to the long-drawn-out discussion of "needle valve vs. no needle valve," which, it seems to me, left us quite in the dark after all. I believe that the needle valve is like money, which is said to be the root of all evil, and surely is the cause of some of it; but nevertheless quite desirable, convenient and even necessary. It is the misuse of money that brought this condemnation upon it, which is equally true of the needle valve.

I had a Ford runabout with 1906 carburetor which seemed almost ideal. It developed less power when hot, but as we always had lots to spare when either hot or cold it caused us no inconvenience. I got one with same make but 1907 model carburetor, at which time bothers began and stayed until I changed the gasoline feed nozzle from a 9-64 inch to a 1-16 inch hole, since which everything has been entirely satisfactory. I had all of Mr. Fay's needle valve troubles, which are really not needle troubles at all, but nozzle troubles.

The distance between needle and nozzle through which the gasoline flows when needle is adjusted is now about 1-200 part of an inch, and before the change was made, was less than 1-400 inch. You see this space was so thin that it coated slightly and choked the motor. I think perhaps a 3-64 inch hole might be better than a 1-16, as it would give greater latitude of adjustment.

Whether these carburetors were designed for larger cars, or whether these large nozzles were put in by error I do not know, but I am sure they have gotten in some bad work on the Ford, and from Mr. Fay's and others' experiences I infer that it has not been worse on Fords than on other cars. By having small nozzle, no delicate needle adjustment is required. After having it once right needle may be turned down gently until seated, using care to not screw it in hard enough to make nozzle larger, and noting how far it was turned it may be brought back or taken out with little liability of disarrangement. While I think the needle valve is all right, we should not use too much of it; that is, the nearer the top of the nozzle the points works, the better it is.

Prattsburg, N. Y.

FRED. D. CLARK.

CARBURETOR OR VIBRATORS MAY BE CAUSE.

Editor THE AUTOMOBILE:

[1,350.]—In answer to your inquiry regarding C. J. Radway's troubles with his Maxwell, would state that sticking vibrators or the flooding of the carburetor during the time the car is not in use would cause it. The results of this would make a black smoke come from the muffler, caused by the excess gas which was not exploded. Sticking vibrators would cause results very similar, as the vibrator sticking would stop the explosion in the cylinder and the unexploded gas comes out of the exhaust pipe as a black smoke. When the engine gets going the motor aids a sticking vibrator, and you would then notice better results at once. I hope this will aid Mr. Radway at least a little in his troubles.

Dallas, Texas.

WELDON A. FOSDICK.



Along Skippers Road, New Zealand, Showing the Rough Nature of the Country Through Which Road Has Been Cut to the Gold Reefs.



Lake Wakatipu and Road Embankment.

FARTHEST SOUTH IN THE AUTO.

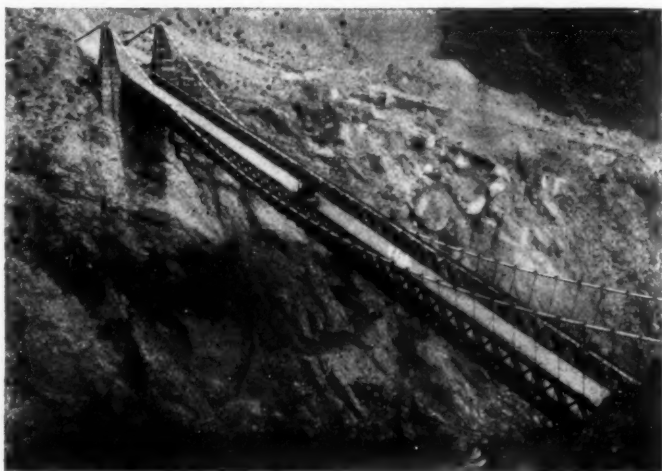
AUCKLAND, N. Z., April 8.—Take an ordinary map of the world, look up New Zealand in the South Pacific Ocean, and its size will appear dwarfed by the immensity of the surrounding waters. Yet this progressive land is very nearly the size of Italy, and not unlike it in form, with the north and south positions reversed. Two large islands, separated by Cook Strait, 16 miles in width at its narrowest point, and a number of smaller islands, comprise the colony. North Island has an area of 44,468 square miles, and South Island is 54,525 square miles in extent.

It is along the southeast region of South Island, on the eastern slope of the Southern Alps that the beautiful scenery predominates which is shown in the photographs. With the march of civilization, the automobile now safely rolls along the picturesque routes once peopled by the wild and savage Maoris.

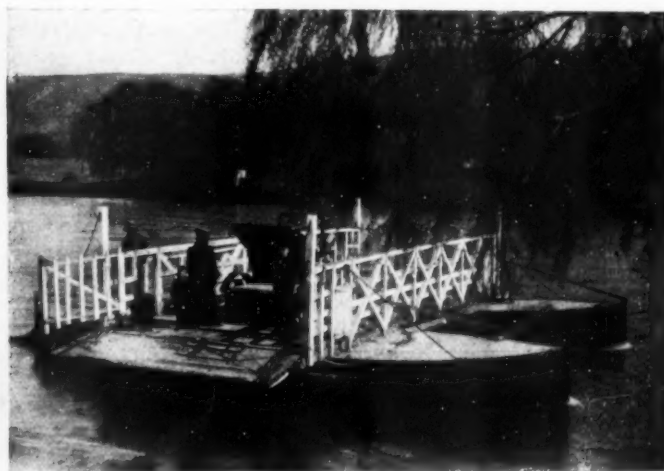
Mt. Cook, which stretches its snow-capped peak 12,349 feet above the sea, crowns the range known as the Southern Alps. Great



Lighthouse Rock, on Skippers Road.



Suspension Bridge Connecting Cromwell with Bannockburn.



Crossing Molyneux River, Lowburn Punt, near Cromwell.



Fording Catilus River, Southland.

glaciers extend their icy arms to within a few hundred feet of the sea on the western coast, but the eastern slope is more gradual, and it is here that generous nature has softened the rugged grandeur with a charm to be found nowhere else south of the equator, and produced a garden spot famous for its wealth of agricultural products and wool growing.

A number of beautiful mountain lakes heighten the effect of the scenery, and the largest of these, Lake Wakatipu, rivals the famous Lake Lucerne of Switzerland in picturesqueness. Its surface is 1,060 feet above the sea, yet its greatest depth extends to 500 feet below the ocean level. The roads are as a general rule of the pioneer type, but an automobile has little difficulty in traversing them, and extensive improvements are being made in the more thickly populated districts. The hardest parts of the South Island to travel are the heavy sand drifts between Cromwell and Lowburn Punt.



A Flutter with the Express.

THE AUTO IN A NEW FIELD, DOWN IN THE SOUTHWEST

By A. C. BUILDER.

DOWN here in the Southwest, where the country has not attained the age and development that begets a public spirit of road building, the genius of a most patient and careful chauffeur would be taxed to safely steer his machine over the ditchy slopes, long sand beds and through the sloughs of the timbered bottoms. Of course, this condition exists only in the rougher sections, while out on the prairie and the level country—places of good roads by nature—it is easy work to handle the car, and their "honks!" are often heard, and are becoming more numerous; ranchmen, some of the more well-to-do planters, physicians and others have them, so they are not the novelty they are in the sections first mentioned. But as time and progress puts the roads in condition, and the citizenship is enriched by a long-established habitation, the financial side of the proposition will not be the luminous obstacle that it now is; the auto—itsself a money-maker and road promoter—will come to its own.

This bit of writing has to do with the last Summer's experience of two young men living in a portion of the State (Texas) of not sparse population, where there are farms, mills, shops, railways, and all the modern conveniences of the smaller cities of any other section of the country, but where there was not one automobile in a stretch of several counties.

During the Summer months there are held throughout the South reunions of the ex-Confederate soldiers, almost every county having an organized "Camp" and Confederate park, or camping ground, located at some central point. These reunions have become, locally, the event of the year, and are attended during their continuance (which is usually three days, with night programs) by almost the entire citizenship. The program, outside of public speaking and concert features, is enlivened by races and games, and the gathering partakes much of the nature of the county fair. At these reunions it has been the custom for the committee on ground privileges to grant permits to hackdrivers (to as many as desired to pay the fee) to transfer the visitors, as well as home folks, to and fro between park and "square," or depot, as the case may be. The park is generally located within a mile of town, and the fare charged by hackmen is from 10 to 25 cents. There are usually from five to ten thousand visitors in attendance at these reunions, size of crowd, of course, depending upon membership of the "Camp" and attractiveness of the program.

Two young men of limited means, who, upon a visit to the city, had longingly eyed a honking, whirring streak of red, conceived the idea of purchasing a car and making it pay for itself by carrying passengers in competition with the hackmen at the forthcoming reunion. It was with many misgivings that they entered upon the speculation, both being pioneers in the venture, and without any automobiling experience whatever. It was a question whether the people would patronize them or hold to the old methods; this was to be risked.

The next thing was the selection of a car; not an easy matter, nor a thing to be decided at once. The primary use to which it was to be put was to last a few days only, and they must have a machine that would be of some utility in this country of bad roads after the reunion was over. They had begun their contemplations a couple of months before the car was to be used, and had burdened their mail with catalogues and prices from every salesman whose address they were able to obtain. And they loaded up on automobile lore—fiction and fact—while making their decision as to the proper car for their purposes. They decided upon a 30-horsepower, four-cylinder, chain-driven, five-passenger touring car, with top. With a few hundred dollars down, this car was to be placed at their station, the total price being \$2,000.

And if Fulton was ever derided by the skeptical as to the steamboat, these young men were, by a certain element of their

community, when their intentions were made known, while others were more friendly to the idea, and were glad to see the experiment made.

The car came, and with it a chauffeur from the agncy in the nearest city, and within a few hours the boys had mastered the essential rules in piloting an automobile. As the days of the reunion approached, they became more expert; they could miss a stump, round a corner, and dodge a pedestrian pretty well, and they had also gentled a goodly number of the horses.

They secured from the committee on ground privileges, for a fee of \$4, an exclusive circuit roadway from city to park grounds; this, in anticipation, they had selected and cleared of all possible hindrances. They placed their price at 25 cents, one-way trip, the distance being about one mile. The automobile was given the place of honor in the parade, conveying the captain of the camp, the sponsor, and her maids of honor. After this first trip, it was an incessant conveyor of passengers from early morn to almost midnight throughout the three days. On the city square it nosed about among the hacks and surreys with the dignity of a big ocean liner among a lot of sailing craft.

The owners worked in relief, acting as ticket agent and chauffeur. No time was lost in loading; the merry-makers flocked to it like blackbirds to a rye field, often more piling on than could be safely carried. The new auto was a better coin gatherer in proportion to capital invested than Barnum's circus. Of course, there were accidents and breakdowns, but the young men had wisely provided against this as much as possible by having on hand and ready those supplies most likely to be needed.

It is easily seen that this introduction of the automobile was a great advertisement in the community for that make of machines and the company selling them. Since then, three more have been brought to the place. The entire three days was a success to the young men—even unto the last their patronage did not wane. And this is not all; three reunions were held in as many neighboring counties after this one. They had only to drive over cross-country and buy a right-of-way privilege from the committee. The business at each was excellent.

Let any chauffeur compute the amount he would have by loading his car to its utmost capacity at 25 cents per passenger, seats full, wedged in between, sitting in laps, and swinging to side and on behind; make trips of one mile in length from early morn until almost midnight for eleven days (one reunion was of only two days' duration) and see if the total would not pay for a car, "and then some."

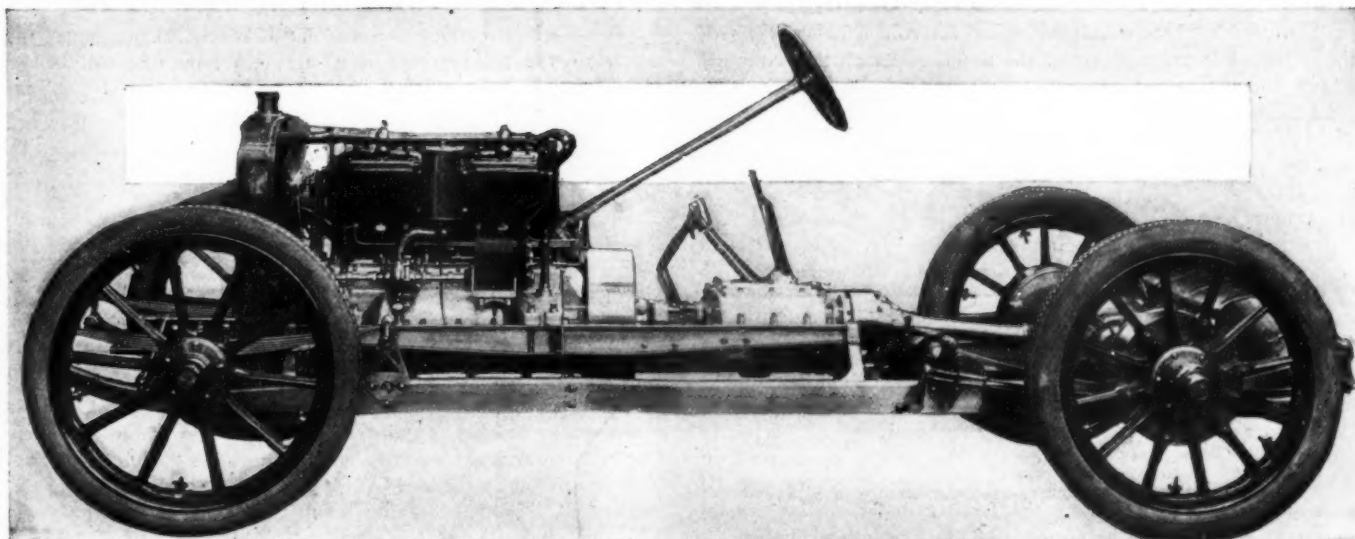
These young men have their car in pretty good order yet, and will have her in trim for the coming reunion season.

AUTOS NUMEROUS IN WESTERN KANSAS.

TOPEKA, KAS., May 4.—The automobile is coming to be a very familiar object in Western Kansas towns. Many farmers are putting them into use also. Men who own farms and ranches use them to make daily or occasional trips to their properties. Many of the rural route mail carriers think they are "just the thing," and so two railroad men are using them out of Kinsley.

Kinsley has a garage, in charge of Lee Hardy, who has the agency for the Maxwell machine, and he has placed some fifteen of that make here at Kinsley and at Lewis, a town eight miles east of Kinsley. Four of the doctors in the two towns own and use runabouts. The real estate man almost invariably has one or two cars at his disposal, and feels that he cannot get along without a machine in his business.

The excellent roads in this part of Kansas are an inducement for using autos, for even after a heavy rain it is but a few hours until all is O. K. for an auto ride. Merchants, auctioneers and stock men are all investing in machines, to be used for profit or pleasure.



Racy Lines of the Underhung Chassis of the American Roadster.

FOUR AMERICAN MODELS FOR 1908.

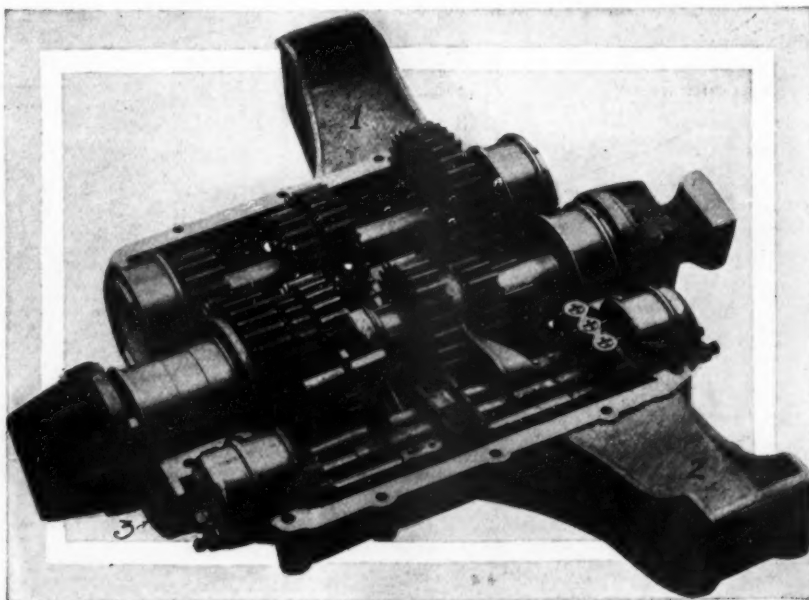
Although the American Motor Car Company, Indianapolis, Ind., has shown that progressiveness so characteristic of American builders, by bringing out roadster and touring car models, neither of these has lost any of the features which made it conspicuous in the 1907 season; the roadster uses the under-swung frame, the touring cars the frame carried above the axle. Four 1908 American models are marketed. A 40-horsepower type, with not a few 1908 refinements, is built in roadster and five-passenger touring car styles, while the two models are mounted on 50-horsepower chassis, fitted with roadster and seven-passenger touring car bodies, the roadster style having, as in the case of the 40, the under-swung frame.

These 50-horsepower chassis stand for the representative '08 product of the factory, in that they are new models, having been made in but small quantities during the past season, in which season the 40-horsepower chassis were the standard constructions. A few differences exist between the 40 and 50, foremost in which is the use of a four-speed and reverse selective gear set in the 50 and the adherence to a three-speed progressive set in the 40. Besides the under-swung frame, the roadsters differ from the touring cars in that the latter employ a rear platform spring, whereas the semi-elliptic type are in regular use in the front and rear on the roadsters. The touring cars and roadsters in the 40 and 50 models vary slightly in wheelbase, the 40 roadster wheelbase measuring 106 inches, whereas the touring car is 116; and in the 50-horsepower chassis the roadster wheelbase is 110, but the touring car measures 124 inches, this additional length giving opportunity for the use of two additional tonneau seats. According to A. L. A. M. rating, the 40 chassis with its 5 by 5-inch cylinders works out exactly 40-horsepower, but the 50 chassis, with its 5 1-4

by 5 1-2-inch cylinders and long stroke, comes to 44.1 horsepower.

The American motor follows that conventional type employing cylinders cast in pairs with valves carried in expansion chambers on the right side and opened through direct lift from a camshaft carried within the crankcase. A neat disposition of the motor parts has been accomplished by carrying the Schebler carbureter centrally to the right and the timer on the top of a vertical shaft between the twin castings on this side. Aside from these general motor marks there are a few interesting details about it that remove it from the realm of pure conventionality. The top half of the crankcase serves as a pan or mud apron construction and in the touring models rests directly on the side members of the frame, thereby eliminating a subframe construction; whereas, in the roadsters a super-frame is required. The gears at the forward end of the crankshaft and camshaft are of the spiral type running in oil, and instead of keying them to the shafts they are coupled to flanges on the shafts. The crankshaft pinion is steel, whereas that on the camshaft is built up of fiber and gray iron. Use is made of separate cams keyed and pinned in position, the camshaft is carried on a bronze bearing between adjacent pairs of cams and the bearings are of slightly different diameter in order to permit of an endwise movement of the whole shaft when taking it out. A change over 1907 construction is carrying the timer on a vertical shaft

at the right between the cylinder castings instead of on a short vertical shaft beneath the dash. This driveshaft is encased in an aluminum housing, the top end of which is anchored, while at the lower end is a shoulder fitting into a pocket in the crankcase. The vertical timer shaft is arranged with a slip joint in it and at the lower end carries a worm which meshes with a worm wheel on the camshaft; and by the use of a lever with ball end which bears against a ball thrust washer, the lower end of the timer shaft and the worm can be moved upwards



Change Gear Set of American Touring Model, Showing Three-point Support.

or downwards, thereby advancing or retarding the contacts of the timer while the exterior of the timer, to which the wires are attached, remains stationary.

Use is made of a double ignition system employing two sets of plugs located respectively in the caps over the intake and exhaust valves, the high-tension wires to which are neatly housed in a large diameter tube carried above the cylinder heads. In this tube are only six wires, those for the two plugs in the rear cylinder not entering it. Current for one set comes from a high-tension Simms-Bosch magneto with self-contained distributor and for the other set from a storage battery. Motor lubrication is effected through a five-feed lubricator, located under the floor boards in the touring car and housed within the hollow dash in the roadster. In the cooling of the motor, a few strictly American constructions are found; the water enters the cylinder jackets at a point on each side of the exhaust, the aim being to equalize the cylinder temperatures. The fan is supported on ball-bearings carried on a small shaft supported at the end of an arm clamped to a boss on the front cylinder casting, which arrangement allows of the removal of the fan without disturbing other parts. The blades are made integral with the aluminum hub.

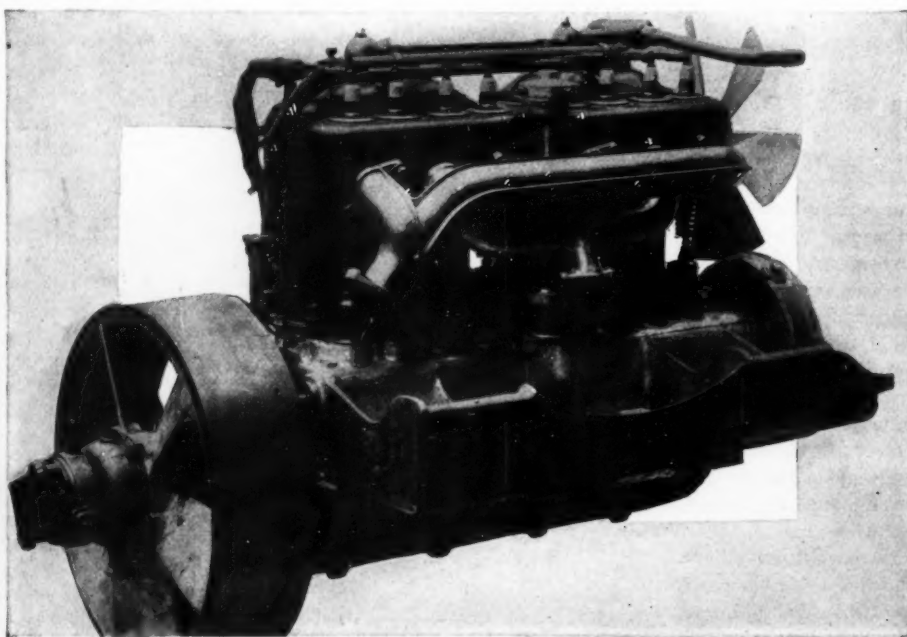
It is when coming to the transmission part of the car that the several changes over '07 construction appear, namely, the employment of selective gear set, as well as that of double expanding brakes, acting within the same rear wheel drums, the expanding members being located side by side and made with the same diameter and width. The selective gear-set, that for the touring car illustrated herewith, has the main and countershaft carried side by side in the same horizontal plane and carries the shafts on annular ball bearings. The case, made in upper and lower halves, has a three-point support in the touring car model, these points being at opposite front corners and at the rear center, the last point being on a drop cross-piece of the frame. The cone clutch used in all models is held in engagement by a spring made from 1-4 by 1-inch flat stock, wound spirally, the thrust of which is taken by large ball-bearings encased in the hub of the clutch and packed with non-fluid oil. Between the clutch and gear-set is a square end coupling made in halves to facilitate adjustment of the spring. This coupling also makes it possible to remove the clutch without molesting the motor or transmission.

The rear axle construction of the American cars includes bevel gear drive to a floating type of axle, the car weight being carried on the axle housing and the axle driveshaft revolving the wheels by means of square inner ends engaging the differential and square outer ends engaging the jaw clutches. On each of the rear wheels is a double set of expanding brakes located side by side and operating within the same steel drum. The two brakes are exactly alike and work under similar conditions all the time excepting in that the expanding shoes are pivoted at diametrically opposite points, one at the front and the other at the rear stud, forming the support, each not only acting as a support for one of the brakes but a portion of it being formed into an expanding cam for applying the other brake to its respective drum.

The frames employed in the touring cars consist of the side members and three cross-pieces, the former having a 5-inch vertical depth, a 1 3-4 horizontal web and manufactured from 3-16-inch stock; there is a rise in the side members of 2 1-2 inches in front of the rear axle, which is done to increase the possible range of action of the platform spring. Supporting the rear cross member, the

center of which carries a triangular bracket, bearing upon the center of the transverse spring, are two long diagonal braces extending from the side members at a point ahead of the rear axle. In addition to the three cross members already mentioned, the crankcase further acts as a tie for the front of the frame and the gear-set serves a similar purpose midway of the side members. The roadster frame embodies side members narrowed at the dash as well as a pair of straight supplementary frame pieces raised higher than the main frame members, and on which supplementary pieces are carried the motor and gear-set. In this frame construction the forward springs are placed on top of the front axle with their rear ends carried in a fixture riveted to the upper side of the frame, and their front ends linked to the end of the frame. The semi-elliptic rear springs are revolvably mounted on the back axle with their forward ends connected to brackets on the upper side of the frame and their rear ends connected to a crossbar which passes completely across from sill to sill of the car. With this construction, the company claims that should the spring break at the forward end, as the bolt comes out, the frame simply drops about an inch, and no material damage is done; in fact, the further claim is made that, for demonstrating, the cars are often driven with the forward end of one of the front springs unsupported. In spite of the use of this drop frame construction, the car has a clearance of 10 1-4 inches, the upper side being protected by a practically flat shield plate. In the 40 roadster, 36-inch wheels carry 3 1-2 and 4-inch tires; the 40 tourist, with the same diameter wheels, uses 4-inch pneumatics front and rear; in the 50 roadster the sizes are as in the 40; but in the 50 tourist 4 and 5-inch sizes are in use in front and rear.

It will be apparent from the foregoing that, with the single exception of the under-swung frame of the roadster type, there is no marked departure from engineering practice current with the majority of designers in this country, though many of the minor details of the power plant and transmission of the different models have been worked out in a distinctive manner, showing the painstaking attention that has been devoted to the small things. In fact, this is evident on every part of the American cars. The design of the under-swung frame type of car, which is continued this year, was so well executed in the original that practically no changes were found necessary to bring it up to date, something that is very frequently necessary on the later editions of first models. This American roadster is an excellent illustration of the fact that a low hung car need not necessarily lack clearance, as it has more than many of the ordinary type.



Operating Side of the 50-horsepower Motor of the American Touring Car.



One of the Latest French Flyers—The Aéroplane Blanc at Marseilles Ready for a Trial.

FRENCH AERONAUTS ARE BUSY.

PARIS, May 1.—Tremendous activity is being displayed at all the aeronautical shops in and around Paris—and their number is now by no means small. At the Voisin Frères shop, in addition to several aeroplanes very similar to the one used by Delagrange in his recent record flight, an entirely new machine of the monoplane type is being pushed forward for Henry Farman. The aeroplane, which is known as the *Flying Fish*, will be fitted with the first of the eight-cylinder air-cooled engines that Renault has just produced. This week the entire frame work of the aeroplane was completed, and it was only waiting for its power plant and canvas covering.

The most original and at the same time one of the most promising of aeroplanes ever built is now receiving finishing touches at the Antoinette factory. Its chief interest lies in the fact that it is the first heavier-than-air machine to be constructed to carry two people, the mechanic and pilot occupying entirely separate positions in the new Antoinette.

M. Levavasseur, who has designed the aeroplane, is the builder of the extra light Antoinette engines used by the most successful aeronauts, and head of the Antoinette company. Connected with him is Captain Ferber, an officer of the French army, who has been foremost in aeronautical matters for ten years. Levavasseur took up aeronautics fifteen years ago, designed a light engine for his flying machine and was bluntly told by everybody that he was mad. Nobody being willing to give a cent for his engine for aeronautical purposes, he put it into a motor boat, beat all European records, and when his engine had won fame went back to aeroplane construction.

In the new two-passenger flying machine Levavasseur has built what may be roughly described as a long, narrow boat, has fitted two wings, a lateral and a vertical rudder at the stern, and placed his engine right forward in the bow, where it drives a two-bladed aluminum and steel propeller.

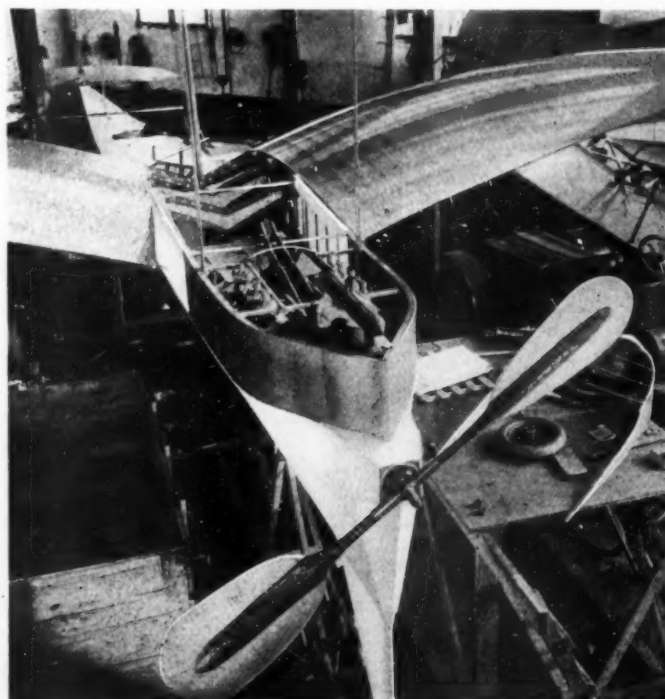
The resemblance with a boat is striking, for the bow is sharply pointed, the craft broadens out amidships and narrows slightly toward the rear. It is decked over with the exception of the forward portion reserved for the power plant and a cockpit to be occupied by the steersman. Instead of a wooden or steel skin, however, the craft is covered with canvas, treated with a coat of waterproof paint, and the deck is of the same style of construction. At the rear is a horizontal rudder the operation of which determines the rise and fall of the aeroplane, and below it is the usual vertical rudder by which movement to the left or right is obtained.

The entire sustaining surface is a couple of light canvas wings 40 feet from tip to tip, attached to what might be called the gunwale. Four men working ten hours a day were six months in constructing this pair of wings, each section of which has been tested to a pressure of one and a half tons.

During the initial trips power will be obtained from an eight-cylinder water-cooled Antoinette engine of 60 horsepower; a little later, however, this will be replaced by a sixteen-cylinder

engine of the same make declared to develop 120 horsepower at 1,200 revolutions a minute. Water for the engine is carried in a couple of copper tanks immediately above the angle formed by the V-arrangement. Later a radiator will be fitted, giving a reduction in weight and allowing the engine to be run for a much longer period than is now possible with the tanks. The gasoline supply is carried in a cigar-shaped tank in the bow, this part of the power plant being all that is visible when the aeroplane is viewed from the ground. Steel cylinders of 4-inch bore and stroke, fitted with copper water jackets, are the feature of the new engine. There is neither flywheel nor carbureter, and ignition is by high-tension Bosch magneto.

Drive is direct from the engine to the two-bladed propeller in front of the aeroplane, the speed of which will therefore be 1,200 revolutions per minute. It is estimated that the aeroplane will leave the ground at a speed of 30 miles an hour, and that its rate of aerial travel will be 54 miles an hour. With the present water and gasoline equipment it will be possible to stay aloft half an hour. Engineer Levavasseur, however, declares that within five months this machine will have remained in the air two hours without touching ground. As if to prove that the aeroplane is intended for long-distance travel, a light awning had been rigged up to give protection from the sun for the well in which Captain Ferber will have his seat. The mechanic, squatted further forward with the engine in front of him, has not been the object of such attentions.



Ferber Aeroplane, of Boat Type, to Carry Two.



The Beautiful Mansion on the Place de la Concorde, Paris, the Home of the A. C. F.

It is now exactly thirteen years ago—February, 1895—that a mere handful of autoing enthusiasts held, at Marquis de Dion's private residence in Paris, a meeting out of which came the foundation of the Automobile Club de France. Little did they think that such a powerful organization would emerge from what they thought at that time would be a mere local and social club. The automobile was then in its infancy, and what few "horseless vehicles" were to be seen elicited more mockery than applause or interest. Among those present at this historical meeting such names as those of Baron de Zuylen, Pierre Gifford, Marquis de Dion, Paul Meyan, Count Récopé may be mentioned. As may easily be inferred, the discussion was a friendly one, and before the day was over the Automobile Club de France had started what was to be an eventful career. A unanimous vote carried Baron de Zuylen to the presidency, and it is a remarkable fact to record that this gentleman has held the position ever since.

A few weeks after, the A. C. F. inaugurated its first clubhouse, which was beautifully located on the Place de l'Opera, right in the center of the town. And the new association began to grow fast, each committee meeting having to ballot several dozen candidates.

Nobody expects me to write here the history of the automobile in France and its extraordinary development. One would have to do so in order to follow the A. C. F. along its course of prosperity, as both histories only make one. As a matter of fact, nothing worth recording has happened in automobile matters in France since 1895 without the club playing an important part in it.

Before one year had elapsed after the foundation, the membership had reached 300, and two years later it was deemed necessary to move to larger premises. After much discussing and negotiating a place was found which enabled the A. C. F. to rival with any club or association throughout the universe in the matter of a clubhouse. Every one will agree with me that no finer place could be found than the beautiful mansions occupied by the A. C. F. on the Place de la Concorde, and which, by the way, are now the property of the club, a syndicate headed by Baron de Zuylen having made its acquisition and allowed the club to pay for it on the installment plan. The building comprises five stories and includes everything that one could expect to find in a modern clubhouse. Outside of big and luxurious restaurants, lounge, smoking and billiard rooms, library, and large meeting rooms, there is a magnificent hall used for festivities and also a regular theater with all stage and machinery

fittings, where about 800 people can be seated in boxes and orchestra seats.

The actual membership of the A. C. F. is 2,300, and the annual subscription is 200 francs (\$40), with an entrance fee of a similar amount. A few words about the organization or constitution of the Automobile Club de France will not be out of place here. It has been vastly altered since the days of the foundation, so as to cope with the growth and developments of what has become much more than the mere pastime it was at first. The A. C. F. is now divided into two parts, which remain distinct as far as administration is concerned. They are: first, the social club proper or "Circle," which is merely the same as an ordinary club; and, second, the promoting association or Société d'Encouragement," whose aim is the general development and protection of the automobile industry, sport and pastime, and the promotion of races,

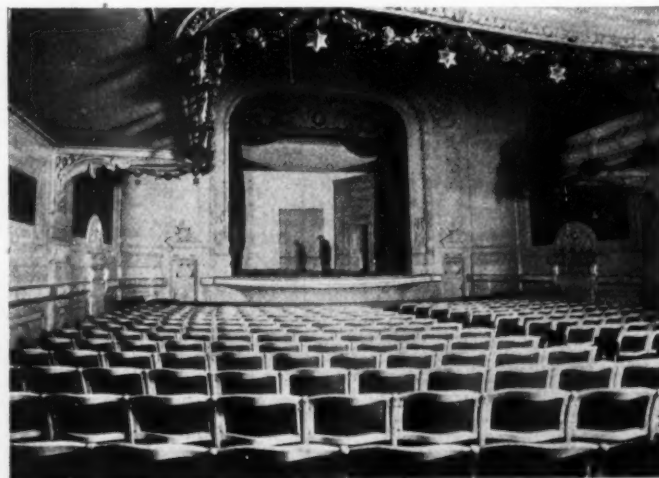
contests, trials, shows, or any other event liable to further or favor same.

It may seem strange to state, however, that no member can belong to any of the allied associations without also joining the other. The reason of a nominal division is obvious. While the "Circle," being considered as a purely sumptuary organization, has to pay heavy taxes, the "Société d'Encouragement" escapes these on account of its object and is, therefore, able to handle a lot of money and receive or expend big amounts.

A committee of fifty members manages the "Circle," and as its organization is pretty much the same as that of all clubs, there is little to say about it.

Managed by Committee of Fifty.

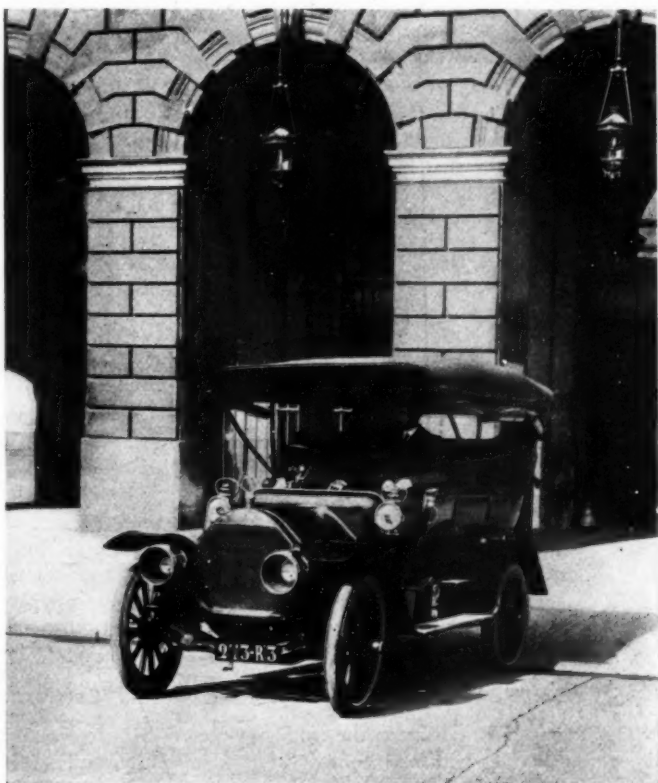
The constitution of the "Société d'Encouragement," which, to foreign eyes appears and is really the A. C. F. itself, will be found much more interesting to study, and I propose giving here a full explanation of same. It is managed by a committee of fifty members, who elect in turn among themselves a board of nine directors, which governs the association and represents it in all circumstances. At present this board of directors or acting committee is made up as follows: President, Baron de Zuylen; vice-presidents, Marquis de Dion and Mr. Henri Menier; treasurer, Mr. Dehideux-Vernimmen; members, A. Ballif, Marquis



Private Theater of the Automobile Club of France.

de Chasseloup-Danbat, Count de la Valette, Count Récopé and Gustave Rives. It may be here stated that there is no secretary on the board, since the secretarial work is done by a paid official, who, at the same time is at the head of the offices of the club. An idea of their importance can be gathered from the fact that no less than 25 clerks are employed by the various "commissions" or sub-committees, irrespective of the footmen and livery division, which numbers no less than 70 people. By the way, the restaurant of the A. C. F. is known among the best in town, and its *chef* draws a princely salary, having twelve men or boys in the kitchen under his orders.

But we must return to our "commissions," as these represent one of the most remarkable parts of the system under description. Now it will be easily understood that in such a powerful organization, having to deal with so many different questions, the task of the members of the board would be simply an impossible one should they try to personally confront every problem. Therefore, as the field of actions grew larger, and the A. C. F. scope of influence widened, it was found necessary to



Samuel A Miles and W. F. Bradley Visit the A. C. F. in the Pierce Great Arrow.

form sub-committees, or "commissions," as they are called in French, each of which was entrusted with a special subject. They number at present eight, viz.:

Eight Powerful Commissions.

(1) Commission des Concours et Fêtes Extérieures, which has in charge the promotion of all trials and contests which are not of a purely sporting character; that is, in which speed is not the essential factor.

(2) Commission des Relations avec les Automobile-Clubs de Province, which, as can be gathered from its name, corresponds and deals with provincial clubs.

(3) Commission du Contentieux, which deals with law and judiciary questions.

(4) Commission des Expositions, which has in charge the promotion of shows generally, and the big annual Paris show particularly.

(5) Commission Technique, dealing with all subjects of a purely technical order.



The Library, Ample and Well Stocked with Books.

(6) Commission de Tourisme, devoted to everything connected with touring and questions relating thereto.

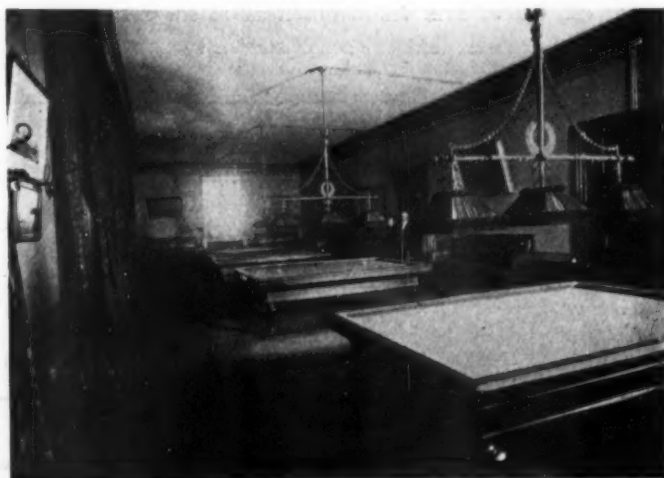
(7) Commission du Yachting Automobile, whose name explains itself.

(8) Last, but not least, the Commission Sportive, having the upper hand over purely sporting questions and whose chief work is the annual promotion and organization of the big annual speed contest known the world over as the Grand Prix de l'Automobile Club de France.

A remarkable fact about these various commissions, and more especially about the last named, is the almost unlimited power they have developed in the life and history of the A. C. F. Now, it would seem that they are to all intents entirely under the dependency of the board of directors, since they are formed by the said board, and could be suppressed by a decision of its members at any time. Be it as it may and explain it as you can, the fact is that these subcommittees have got to be entire masters of their line. Many a time have they taken or advocated measures which were not in harmony with the committee's idea, and the latter has invariably yielded to them. This peculiar situation is more remarkable with the Commission Sportive, whose members are very independent in their ideas, and the onlooker can even ask himself what would happen if the committee ever insisted on ruling over any of the commission's decisions.

Commission Sportive Of and For the Industry.

Now, to foreign eyes, this Commission Sportive represents, therefore, the A. C. F. itself to a great extent. It is the one which has the biggest international prestige in the French club, and one must admit that it fully deserves it on account of the pains taken by its leaders and of their undoubted abilities in the



Where the Members Enjoy Themselves at Billiards.

work they perform. Therefore, it will be found interesting to devote here a special study. The president of this sub-committee, which, in many ways eclipses the committee itself, is Chevalier René de Knyff, and the vice-president, Count Robert de Vogué, two of the best-known figures in international motor matters. The list of members is as follows: Prince d'Arenberg, Henri Brasier, Etienne Girard, Georges Huillier, Count de la Valette, René Doysel, Guinonet de Léon, Louis Renault, Baron de Turckheim, while Messrs. Clément, Gobron and Bocandé are also entitled to a seat as delegates of the Chambres Syndicates, or makers' association. Now the observer cannot help being impressed by the fact that this board which practically controls and manages motor racing in France is almost entirely made up of trade representatives, and, what is more, of the biggest firms and concerns.

A perusal of the above list would show that Panhard, Brasier, Charron, Renault, Dietrich, Clément and Gobron are all represented either by their heads or by some people holding prominent positions in the firm. Indeed, out of the above 14 gentlemen, not more than four have no direct connection with the trade, and even then some of these four are known to hold some financial interests in same.

It will not, however, surprise many people to hear that the big success of the French racing generally can be put down to the good work done by such competent people. The old saying, "have millmen in the mill," is ever true.

To close up with this article on the big French club, a few words must be said here of its prominent part in the promoting of the annual Salon, or show. Thanks to the efforts of G. Rives, who is past master in this line, the A. C. F. comes in every year

for a big share of the profits made in this enormous and world-famed enterprise. This is what enables the club to carry on an expense list worthy of its reputation.

And if I had to name another reason for the success and prosperity which has marked the career of the Automobile Club de France, ever since its inception, I would put it down to the remarkable spirit of concord and alliance which has always animated its leaders.

SOME FOREIGN OBSERVATIONS BY S. A. MILES.

From S. A. Miles, general manager of the N. A. A. M., who is now touring Great Britain and the Continent with a Pierce Great Arrow, comes a few observations:

"I have been greatly impressed by the enormous number of 'buses and cabs in use in London. Horace Bell, who is well remembered in the States, is the manager of the cab company, which has 505 cabs in operation. These cabs run at 20 miles an hour through the traffic, and are, I should say, the greatest advertisement the motor car has ever had. The 'buses are less noisy and less frequently disabled than when I was last here.

"The touring facilities available in London at the headquarters of the Automobile Association are most excellent. Just at present there is a row on between the A. A. and the Royal Automobile Club, a lordly thing which seeks to enjoy the power of veto, etc., over which the rank and file is rebelling.

"To accomplish the general good of automobiling, organizations must be good in character, and this holds good both on this side of the water as well as in America.

"I am looking forward to some most enjoyable touring."

GRAND PRIX DES VOITURETTES WILL BE POPULAR EVENT

PARIS, May 1.—Without claiming to be a prophet, one may put forth the statement that the voiturette Grand Prix, to precede the international race on the Dieppe circuit next July, will be one of the most popular events ever disputed in France. The fact that out of the 60 cars only six are foreigners does not appear likely to have any influence on the public estimation of the race; probably, indeed, it will enhance the value in the eyes of the natives. During the past eighteen months or two years France has certainly got rid of the idea that the *car de luxe* is the only interesting article in the automobile world, and, once free from this illusion, has plunged into the small car or voiturette field with unbounded enthusiasm.

There is no similarity whatever between the French voiturette and the small cars which dealers in this country are afraid American constructors may ship over in huge quantities at any moment. It is a distinctly home product which public taste and racing regulations have developed on certain fixed lines.

For the "Grand Prix des Voiturettes," as for the similar but privately organized contests for runabouts, 3.9 inches for a single-cylinder engine has been fixed as the maximum bore; for two, three, and four-cylinder engines the cylinder bore is proportionate, stroke being unlimited. It is a diminutive power plant that is carried under the bonnet of the small cars, smaller, I believe, than any produced by the better known American factories. Ford, indeed, who is now well represented in France, is altogether too big to come into the race with his small cylinder runabout, and, according to Henri Depasse, the Paris agent, this popular American firm will not construct a baby four-cylinder of 2.4 inches bore.

According to all the information at present available, Isotta-Fraschini, and Pilain, the one Italian and the other French, will be the only two firms entering four-cylinder cars under the limited bore of 2.4 inches. There will be no three-cylinder engines, and probably not more than 25 per cent. of the entrants will have two-cylinder engines measuring 3.07 inches bore; the great majority will be single-cylinder cars with the maximum bore of

100 millimeters, the single-cylinder type having sprung into unusual favor since the inception of the voiturette class.

In every case the voiturette racers follow the general disposition of the large cars, the power plant being forward under a bonnet, transmission being through sliding gears, and final drive generally by cardan shaft and live axle. There is not a car constructed in France with the motor under the seat, under the body, or at the rear, and there will certainly not be a single vehicle in the voiturette race which will differ externally—except of course in size—from the mile-a-minute racing cars.

Features of Some of the Undersized Racing Cars.

The undoubted favorite in the runabout race is Sizaire-Naudin, the victor in the voiturette contest of last fall. New Yorkers had an opportunity of studying the external features of the firm's production in the New York-Paris contest, when Pons made a little run up-State on a Sizaire and retired with a broken differential. For the Grand Prix three single-cylinder cars have been constructed, all with the maximum bore of 3.9 inches, and stroke of 6.2 inches. As the team is quite ready it is probable that the machines will be run in the Targa Florio preparatory to competing on the Dieppe circuit.

At the normal engine speed of 1,700 revolutions a minute the small power plant develops 16 horsepower on the brake and is geared to run at 12, 18 and 39 miles an hour at 1,500 revolutions a minute. As the engine can be accelerated up to 2,200 revolutions a minute, the speed of the car will be over 50 miles an hour under favorable conditions. Among the few changes which have been made since last year's models is the increase in weight of the moving parts in the engine. The piston and connecting rod last year were of especially light construction and were found to have a certain amount of flexion. The extra weight which has been put into these parts has tended to increase the efficiency of the engine, according to the factory experts. Valves are superimposed, the inlet being operated by an overhead rocker arm. Overhead valves, indeed, will be a feature of both the

Grand Prix and voiturette racers, a large number of the cars also being fitted with hemispheric combustion chambers.

High-tension magneto, of Bosch manufacture, supplies the current for the Sizaire-Naudin. In this respect there is a remarkable uniformity among the small racers, the number of those obtaining their current from storage batteries, or even carrying storage batteries as a stand-by not exceeding five per cent. The engine is water-cooled, with circulation by thermo-syphon. Here again there is uniformity, not a single air-cooler being entered. Regarding the value of a pump small car constructors are not entirely of one mind, though thermo-syphon systems of water circulation are in a majority in the cars presented for this contest.

In suspension, transmission and drive Sizaire-Naudin has worked on independent lines. Thus the fore part of the car has a single transverse spring having a certain resemblance to that of the Mora; the rear suspension is by means of reversed semi-elliptic springs, the rear ends of which are attached to the axle. A metal disc clutch transmits the power through a propeller shaft to a gear box on the rear axle, where three speeds forward and one reverse are provided, all the forward speeds being on direct drive. Instead of the exhaust being carried to the rear below the chassis it is brought out through the box behind the mechanic seat, giving the rear of the car very much the appearance of the stern of a motor boat.

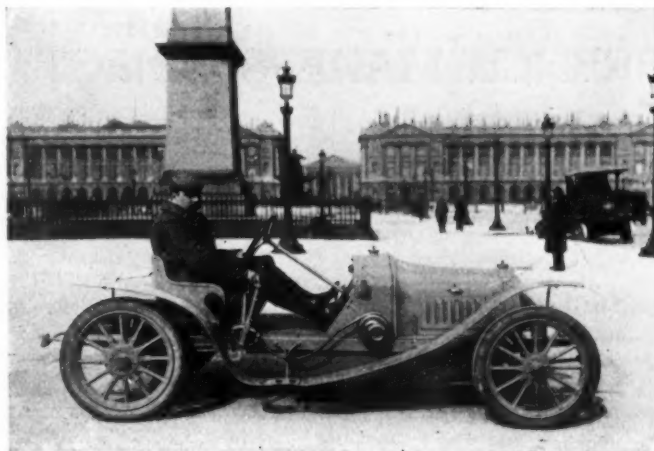


The Passe-Partout, One of the Voiturette Race Candidates.

Gregoire, one of the two-cylinder champions, has three cars of this type, each one with a bore of 3.07 inches and stroke of 5.9 inches. Changes from the standard type of engine constructed by the firm are overhead valves, commanded by rocker arms, and dome heads, the plugs being placed laterally just below the inlet. The crankshaft is offset ten degrees. Standard lines are followed in the sliding-gear transmission and final drive by rear live axle. A special feature, however, is the parallelogram suspension of the cardan shaft. With the radiator well behind the rear axle, the seats completely encased in and the rear in turtleback form, the little car has all the features of a racer, and a fast one at that.

Isotta-Fraschini and Pilain, the two firms entering four-cylinder cars, have both built engines with cylinders in one casting, dimensions for each being 2.4 bore by 3.9 stroke. Both have ignition by high-tension magneto, the French car being equipped with a Nilmelior and the Italian with a Bosch; the Pilain is one of the few cars having a double system, accumulators of course only being used to start up or as a stand-by.

Only one make of car in the race is fitted with side chains, European constructors generally believing that the shaft is the *dernier mot* in small car construction. Lion-Peugeot, however, had sufficient success in the last voiturette race, when all three cars had double chain drive, to convince them that it would be good for the Grand Prix. Foullaron employs a belt drive



Foullaron Voiturette Candidate and Driver Grillet.

with a patented system of extensible pulleys, which, though successful under ordinary touring conditions, is not looked upon seriously for a race. All other constructors that are entrants in the race, have shaft-driven cars.

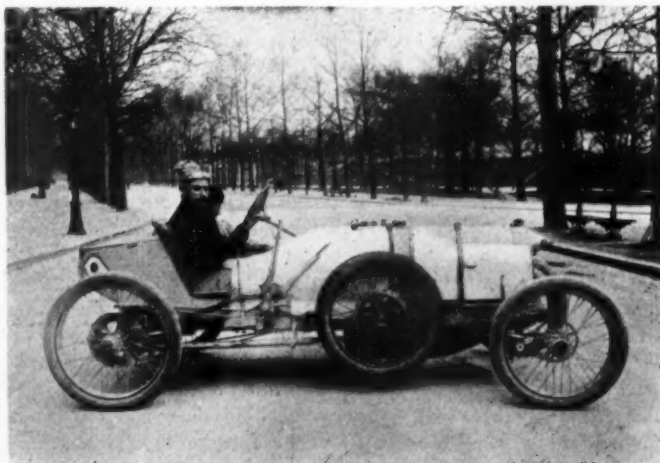
LONDON HAS NEW TAXICAB RULES.

With a view of ameliorating grievances complained of by the patrons of taxicabs in London, the commissioner of police has issued the following regulations, which, it is expected, will relieve congestion and improve the service:

- (1) The drivers of the first two motor cabs must be with their cabs and be ready to be hired at once by any person.
- (2) All cabs on the standing must move up as vacancies occur.
- (3) No motor-cab engaged for some future time shall remain on the standing, unless willing to accept any intermediate hiring that may be offered.
- (4) No disabled motor-cab shall remain on the standing unless such disablement is strictly temporary, and can be, and is, remedied at once. If the disablement is not of such a nature, a notice (in a form to be approved by the commissioner) must be at once placed on the cab to the effect that it cannot be used, and will be removed for repair.

PERMANENT SHEDS FOR THE PARIS FLYERS.

PARIS, May 1.—On the Issy-les-Moulineaux ground permanent aeronautical sheds for the proper housing and care of aeroplanes are being built by special permission from the war authorities. Previously all sheds were flimsy wooden structures on the outside of the wall surrounding the military drill ground and adjoining the newly-erected bar which its proprietor, with an attempt at English, has named the "Aerot's Bar." The new sheds, in wood and plaster, are on the drill ground itself, and will offer much better facilities for entering and leaving.



Sizaire & Naudin Voiturette—Driver Sizaire at Wheel.

FRENCH MAKERS OBJECT TO VANDERBILT CUP RULES

By W. F. BRADLEY.

PARIS, May 1.—French automobile constructors are almost unanimously of the opinion that the Racing Board of the American Automobile Association has been wasting its time in the determination of weight limits for the next Vanderbilt Cup race. Automobile France argues that America accepted the international racing rule adopted at the Ostend conference and ratified at the Paris conference, and that the plain duty of the United States is to abide by those regulations. All constructors with whom I have spoken on the subject declare that they are unable to understand the necessity for any change in the weight limits, even those adopted not being in accordance with the Ostend standard, which was fixed at 1,100 kilograms minimum, without water, tires, tools or spare parts.

Not only are individual members of the trade dissatisfied with the Vanderbilt draft received, but the Automobile Club of France has raised its voice in official protest. At the last meeting of the Racing Board it was decided to oppose the adoption of the outlined Vanderbilt rules, on the ground that America, as one of the contracting parties, was bound to the international conditions.

In order to get inside information on the matter, THE AUTOMOBILE correspondent called upon M. René de Knyff, chairman of the Commission Sportive of the Automobile Club of France, and asked for his views on the matter.

What Chairman De Knyff Has to Say.

"You will understand what we feel about the matter," declared the pioneer French automobilist, "when I tell you that an official protest has been drawn up and will be sent by the next mail to the Automobile Club of America. At the same time a copy of the protest will be sent to every club connected with the international conference.

"Our grounds for protest? They are that an international rule was agreed to at the Ostend conference, that America approved it, and that every nation taking part in that conference is under an obligation to hold no race for cars exceeding a bore of 155 millimeters.

Neither American Delegate Attended Ostend Meeting.

"Though invited, I believe neither of the American delegates attended the Ostend meeting, at which after a long discussion we agreed to hold no races in 1908 except for cars of a bore not exceeding 155 millimeters, and of a minimum weight of 1,100 kilograms. At the November meeting in Paris the American delegates were present and agreed to these rules. Now we are informed that America intends to break away and cause constructors to build an entirely different set of cars."

It was pointed out that the disruption between the A. A. A. and the A. C. A. might be considered as nullifying the agreement so far as America was concerned. M. René de Knyff appeared to be puzzled by the nomenclature and admitted that the only association that was familiar to him was the A. C. A.

"But put aside this question of clubs. I suppose the object of the American Racing Board and of Mr. Vanderbilt is to make a success of the Vanderbilt Cup event. How can you do it if you persist in adopting a rule that keeps out all European cars? Expenses in connection with a race are frightfully heavy, and it was entirely with a view to diminishing them that the national clubs got together and decided on a common basis for all the great speed tests. You cannot expect us to build cars specially for the Vanderbilt race, and to compete with our 155 millimeter machines against cars of 170 or 180 millimeters would be folly. The American board is two years behind the time, for it has adopted the rules that were in vogue for the first Grand Prix on the Sarthe in 1906."

"Do you intend to combat the Vanderbilt conditions?"

"Most certainly. As a club we shall refuse to have any connection with the race if the international rule is not adopted. We cannot prevent French constructors going over to America and competing if they wish to do so, but we can refuse to help them, and we shall certainly wash our hands of the whole affair if America refuses to live up to her agreement."

"Some American cars are already built? Well, that is a pity, but there cannot be many of them, and I know that Mr. Vanderbilt and Mr. Thompson are such thorough sportsmen that they will not allow a mistake or a misunderstanding to give two or three firms an unfair advantage over the entire world. Of course if Mr. Vanderbilt wants his race to be for American cars only, let him stick to the proposed rules, and I am certain his wish will be gratified. But, quite apart from obligations, if you want to make the American event a success, you will certainly have to adopt the rules of the Ostend conference. Our Sarthe cars are gone, who knows where, and we do not want to build any more of that type."

Delegate Hogan Tries to Explain Complications.

W. S. Hogan, one of the delegates of the Automobile Club of America, seen at his office in the Avenue Kleber, at once confirmed the statements of M. René de Knyff regarding the obligation of America to submit to the international rule.

"Personally I was not present at the Ostend international conference, and was not even notified to attend. If the A. C. A. did send a notice, it certainly did not reach me. To the best of my knowledge my colleague, Howard Johnston, was not present either. When I heard that such important business had been enacted I was sorry I had not received a copy of the program, for in that case I should have attended, whether convoked or not.

"At the international conference held in Paris, November 21 of last year, both Howard Johnston and I were present. Our instructions from the A. C. A. were to act as we thought best, and we consequently voted the ratification of the Ostend rules. The conference was attended by every recognized national automobile club, and the vote was unanimous. In my opinion the only sensible policy was to adopt the uniform rule; times are now too strenuous in all countries for money to be squandered on the construction of half a dozen sets of racers each year. Builders in every country in Europe want a rule which will allow them to build one set of cars per annum and to race them in every country holding a long-distance speed test.

"The conclusion of the matter is that the American club, having given us the power to act, is under an obligation to abide by the contract, and though I know that differences have arisen between the A. C. A. and the A. A. A., that should not prevent the Ostend rule being adopted for the Vanderbilt Cup race."

What the Minutes of the Meeting Show.

According to the minutes of the November conference it appears to have been thoroughly understood that no nation should hold a speed test under any other rules than the one decided upon at Ostend. The Belgian delegate in his remarks stated that it was not the intention of the conference to forbid the holding of races for smaller cars, but that no races should be held for machines more powerful than those under the Ostend rule.

A visit to the office of the International Association of Recognized Automobile Clubs, which has been put on a more permanent basis as a result of decisions taken at the November meeting, brought forth the fact that neither of the American delegates was present at the Ostend meeting. A letter was received from President Hoyt, just before the conference, asking that the A. C. A. members be excused. Both delegates, however, were present at the November conference, as the official minutes show, and voted in favor of the international racing rule.

NO VANDERBILT RECOGNITION SINCE A. C. F. KILLED BENNETT

IN view of the fact that the Automobile Club of France, immediately after interring the Gordon Bennett race in the winter of 1905-06, practically disregarded any further communications in reference to the Vanderbilt Cup race, classing it as a similar event, the comments of Chairman De Knyff read somewhat humorous. He states: "As a club we shall refuse to have any connection with the race if the international rule is not adopted." As a matter of fact the Automobile Club of France has had nothing whatever to do with the Vanderbilt Cup race for several years past, declining in 1906 to designate officially the French entrants as representing the club and France.

In 1906 the Vanderbilt Cup Commission arbitrarily named the five French cars, Chairman Jefferson deMont Thompson, while in Europe and in attendance at the Grand Prix, making arrangements for the French entries in the race for that year.

France made the Gordon Bennett an impossibility because it did not desire to limit its makers to a team of five cars when any other country, no matter how small, could have a similar number. It was for this reason that it withdrew its recognition of the Vanderbilt event.

It is a certainty that there will be French contestants in the next Vanderbilt race, several firms having stated that they would enter cars no matter if the 1908 international conditions were not adopted. Germany is certain to be represented, England is a possibility, and it is more than likely that Italy will not lose her prestige by remaining out of the fray.

While it is admitted that international rules should be in effect for all big road races, circumstances made this practically an impossibility for the 1908 Vanderbilt race. Furthermore, the manner in which the A. A. A., the governing body of automobile racing in this country, has been represented in the councils of the International Association of Recognized Automobile Clubs has been careless, to say the least. The A. C. A., as a matter of courtesy through its having been the first club formed in this country, was continued by the A. A. A. as a spokesman of the country, but it is a recognized fact that its manner of looking after the interests of the A. A. A. has not been entirely conscientious. The A. C. A. has never troubled itself to make any report from time to time to the A. A. A., and the latter apparently took it for granted that there was nothing to report upon. Until this misunderstanding over the 1908 conditions came about, the matter of international relations occupied slight attention.

Unquestionably there has existed in Europe the impression that the A. C. A. was the direct and duly authorized spokesman

of the United States, the existence of the A. A. A. being imperfectly known. The present discussion will bring forth the exact situation, and it is reasonable to suppose that the A. C. A., no longer being a part of the A. A. A., will suggest to the foreign



Vanderbilt Plaques to the A. C. F.

To the Automobile Club of France, in recognition of its victories in three Vanderbilt Cup races, W. K. Vanderbilt, Jr., some time presented to that organization a trio of bronze plaques. That of 1904 tells of the victory of Heath driving a Panhard; for 1905, Hemery, driving a Darracq; and for 1906, Wagner, driving a Darracq. These plaques adorn the walls of the club's house in Paris.

clubs that they deal directly with the A. A. A. as far as racing is concerned. This would seem to be a logical sequence, though there are those in this country who believe in the framing of our own rules and leaving it up to the foreign makers as to whether or not they care to participate in our events.

CONNECTICUT'S ATTITUDE TOWARD VANDERBILT CUP RACE

HARTFORD, CONN., May 4.—The principal topic of local conversation is the possibility of holding the Vanderbilt Cup race in Connecticut. It is much desired that the big race take place in this State, for, measured in dollars and cents, it means that a vast sum of good money will come into the State. But there is another side to the question—the law. The present automobile law in force in Connecticut is one of the best in the country, and all speeds are abolished up to 25 miles an hour. To bring about this measure, considerable hard work was necessary on the part of the autoists and clubs. When the next legislature convenes it is possible that an attempt will be made to put in force a substitute measure.

The law in force very clearly defines that no races shall be held in the State, and the best legal talent holds that this point cannot be dodged and that nothing short of a special act of the legislature would permit the holding of the Vanderbilt Cup race in Connecticut. Yet it is claimed that the governor himself has

stated that he sees no reason why this race should not and could not be held in Connecticut. To make a long story short, if it is possible to have the race here, it is much desired, but if it has to be in defiance of the law, it can work no material good.

It would be far better to see the Vanderbilt Cup event go to Savannah, or to some other city, than to have it come to the Nutmeg State and be the cause of the repeal of the present liberal law. It is too great a sacrifice, not only for the people of the State, but those of other States, New York, for instance, New Yorkers do not find it at all congenial to tour through New Jersey, yet they have some show in Connecticut, and it is desired that present conditions prevail for all time, if possible. "Let us have the Vanderbilt, if possible, but not at the cost of our automobile law," is the slogan. As for courses, there are any number that could possibly be chosen and some of them would be through the smaller towns where there would be no likelihood of interruption from street traffic.

THE AUTOMOBILE

Vol. XVIII

Thursday, May 7, 1908

No. 19

THE CLASS JOURNAL COMPANY

Flatiron Building, Madison Square
New York City

H. M. SWETLAND, President

EDITORIAL DEPARTMENT

A. G. BATCHELDER, Managing Editor
R. F. KELSEY, Associate Editor C. B. HAYWARD, Engineering Editor
W. F. BRADLEY, Foreign Representative

BUSINESS DEPARTMENT

A. B. SWETLAND Business Manager
LOUIS R. SMITH FRANK B. BARNETT
W. I. RALPH, 1035 Old South Building, Boston, Mass.
C. H. GURNETT, H. E. WESTERDALE, 1200 Michigan Ave., Chicago, Ill.

Cable Address - - - - - Autoland, New York
Long Distance Telephone - - - - - 300 Gramercy, New York

SUBSCRIPTION RATES:

United States and Mexico - - - - - One Year, \$3.00
Other Countries in Postal Union, including Canada - - - - - One Year, 5.00
To Subscribers—Do not send money by ordinary mail. Remit by Draft,
Post-Office or Express Money Order, or Register your letter.

FOREIGN SUBSCRIPTION AGENTS:

ENGLAND:—W. H. Smith & Sons, Ltd., 186 Strand, London, W. C., and all their
railroad bookstalls and agencies throughout Great Britain; also in Paris at
248 Rue de Rivoli.
FRANCE:—L. Baudry de Saunier, offices of "Omnia," 20 Rue Duret, Avenue de
la Grande Armée, Paris.
GERMANY:—A. Seydel Mohrenstrasse 9, Berlin.

Entered at New York, N. Y., as second-class matter.
The Automobile is a consolidation of The Automobile (monthly) and the Motor
Review (weekly), May, 1902, Dealer and Repairman (monthly), October, 1903,
and the Automobile Magazine (monthly), July, 1907.

Copies printed in 1905 - - - - -	730,000
" " in 1906 - - - - -	791,000
" " in 1907 - - - - -	888,000

IN PICKING A VANDERBILT COURSE.

When the residents of any community give up their roads for the purposes of automobile contests, it follows as a natural sequence that there must unavoidably be more or less interference with those citizens who are accustomed to use the highways in the pursuit either of business or for the purposes of pleasure.

Therefore, it appears to be a logical conclusion that it is most unwise to place the venue of a big automobile road contest in the county of any State wherein practical unanimity does not exist as to the use of the roads for high speed automobiling. One never knows what may come up to interfere with presumed arrangements, and the recent Briarcliff event with its eleventh hour difficulties supplies a forcible example.

New York City is the metropolis of the country, and it has a natural advantage in all things, including the supplying of thousands of onlookers to any event which may be scheduled to take place in its vicinity. But it is the presence of these thousands of onlookers which compels in the case of an automobile road contest a most thorough guarding of the course, and this only can be accomplished by the presence of uniformed men and possessing authority to forbid for the moment all citizens other than those engaged access to the road.

If it were possible to complete the Long Island Motor Parkway in time for the race, then the selection of New

York City would be a foregone conclusion. But one thing and another has delayed work on the parkway, uniformed men seem an utter impossibility, and gradually hopes are fading away for a 1908 Vanderbilt race in the metropolitan district.

In looking elsewhere for a course, the Vanderbilt Cup Commission is naturally seeking a locality where the residents are entirely favorable and where proper policing of the course is assured. It is an easy matter to pick out roads, and various States can supply excellent stretches of highway. It is another thing to have a unanimous invitation and the certainty of the essential policing. Savannah up to date has given the most substantial guarantees of the several bidders; in fact, is the only applicant that has come forward prepared and ready to do business without equivocation. Connecticut has been mentioned frequently of late as a possible scene for the big international road race. Now it appears that the automobilists of that State are not all of the same mind, and the existing law is quoted as absolutely forbidding such a contest. Connecticut is favored with a most excellent law, liberal in its provisions, but prohibitive in reference to road racing. One can hardly blame its autoists for not running the risk of a revision of the present law, even for the Vanderbilt Cup race.

But the race will be held; Savannah seems to be entitled to an early answer: and there will be a sufficiency of foreign participants, even though the French makers find fault with our non-acceptance of the international racing conditions of the year. We have always raced according to their ideas; now it is their time to race according to our ideas, or refuse to play in our yard. It's pretty good guessing, however, that there will be participants from France, and Italy and Germany, and, perhaps, England.

* * *

SHOULD THE CAR BUILDER PROVIDE TOOLS?

Partly as an inheritance from the old bicycle days, when practically every machine was built according to a different standard, and partly owing to the fact that many automobiles still have parts that conform to an exclusive standard, the automobile builder finds it incumbent upon him to supply a certain number of tools with every car that he sells. Ordinarily, these are not confined to a few special spanners to fit those particular bolts or nuts that may differ from other standards, but also include a wrench or two in addition, an oil can and a screwdriver—needless to add, a so-called tool outfit wholly inadequate to the requirements of the car which it accompanies. If the maker feels called upon to supply a tool kit as part and parcel of every car he builds, it only seems fitting that he should fulfill his duty in this respect by providing an outfit of tools worthy of the name, as well as one that is in keeping with the selling price of the car. Naturally, tools do not actually form any part of the car; it is just as complete and just as ready for the road without them, and the maker is reducing his profit on the car just that much by supplying them. In a case where cars are turned out by the hundred, the expense for tools is no small item, and their cost is kept down as much as possible, but rather than send a \$2.50 tool outfit with a \$2,500 car, it would seem preferable to omit this essential from the equipment.

A. A. A. GAINS ITS 24TH STATE BODY—BUFFALO CONVENTION

THE twenty-fourth State association was admitted to the American Automobile Association at the meeting of the national organization's executive committee, held at 437 Fifth avenue, New York City, Tuesday last. This body was the Virginia State Automobile Association. By the admission of the Automobile Club of Little Rock a start was made for a State organization in Arkansas. Reports from various State bodies told of added clubs, especially in the Middle West.

It was decided that instead of designating a single day as "Orphans' Day" throughout the country, that the A. A. A. would suggest the second week in June as the best period in which the various clubs may conduct their annual Orphans' days.

Every club in the association will be asked to send three delegates to the good roads and good laws convention, to be held at Buffalo, July 6, 7 and 8, preceding the start of the annual tour for the Glidden and Hower trophies. Because of this event, the June meeting of the executive committee will take place at Buffalo on Tuesday, June 2.

In the absence of President William H. Hotchkiss, who was unable to attend, First Vice-President Speare presided. Preceding the session, there was a meeting of the special committee

in charge of the Buffalo convention, which promises to be the most important affair of the kind ever held in this country. The governors of all the States will be asked to send representatives and a large attendance is already assured.

In connection with the question of good roads, there will be seen roads in actual construction and also demonstrations of the various kinds of road preservatives, including oil, coal tar and other preparations. Practically all the important road machinery concerns of the country will have exhibitions, and the subject of good roads will be thoroughly covered.

George C. Diehl, county engineer of Erie county, will be the chairman of this "Committee on Practical Road Construction;" Alfred Reeves will serve as chairman of the committee on publicity, and others well qualified will assist Chairman R. P. Hooper, of the Good Roads Board, and Chairman Charles Thaddeus Terry, of the Legislative Board. The National Grange has promised its hearty support, and the president of this big organization, ex-Governor N. J. Batchelder, of New Hampshire, will be one of the speakers. The delegates will be entertained in various ways and work on the various activities is reported to be well in hand.

JERSEY'S BIG CLUB NOW HAS 816 MEMBERS.

NEWARK, N. J., May 4.—At its annual meeting held to-night the New Jersey Automobile and Motor club discussed the new amendments and voted to stand by the State Association of the A. A. A. in any legal fight it might make to test their constitutionality.

The following officers were chosen: President, Paul E. Heller; vice-president, W. C. Crosby; treasurer, Dr. James R. English; secretary, A. B. Le Massena; trustees, William C. Shanley, H. A. Bonnell, F. A. Crosselmire, Dr. F. B. Meeker and A. G. Scherer.

The club has added 130 members to its roll since the last annual meeting and now numbers 816, taking third place numerically among the automobile clubs of the country.

PRESIDENT HOTCHKISS TO BAY STATERS.

BOSTON, May 2.—William H. Hotchkiss, president of the American Automobile Association, came to Boston to-day by invitation of the Massachusetts State Association for the purpose of making an address before the members at the American House. The audience was thoroughly representative, and included two former presidents of the A. A. A., Messrs. Whipple and Lee; First Vice-President L. R. Speare, and representatives of the Wachusett, Springfield, Worcester, Bay State, Malden, and other automobile clubs affiliated with the State association.

President Hotchkiss laid much stress upon the advantages of cooperation among the automobilists of the country, and told of how much more can be accomplished in this way than by purely individual or club effort.

SELDEN FIGURES THAT TELL INTERESTING STORY

TRENTON, N. J., May 4.—The hearing of the petition of the receivers for the defunct Electric Vehicle Company, Halsey M. Barrett and Henry W. Nuckols, regarding the signing of a new arrangement by the Selden licensees with regard to a reduction in the percentage of royalties they are paying, which was to have come before the United States Circuit Court here this morning, has been postponed for two weeks. In the meantime, some interesting facts and figures have come to light. It will be recalled that the receivers state in their petition that the licensees regarded the royalties as excessive long before they refused to pay further amounts to the receivers.

It seems that since the formation of the licensed association the gross royalties paid to the Electric Vehicle Company have amounted to \$1,893,608.93, of which George B. Selden received \$391,333.88, while the E. V. Company's net portion was \$682,274.64, the licensed association receiving \$820,000.41. Here are the figures for the past five years:

	Gross Royalties	Paid to G. B. Selden	E. V. Co.'s Share
1903.....	\$153,783.55	\$33,372.96	\$39,859.05
1904.....	253,273.42	51,762.92	86,435.53
1905.....	413,958.31	79,747.49	150,116.01
1906.....	564,535.24	114,100.67	217,683.56
1907.....	508,058.41	112,349.84	188,180.49
	\$1,893,608.93	\$391,333.88	\$682,274.64

As the result of the failure to modify the agreement regarding the extent of royalties paid, there was a general refusal to continue payments, so that for the quarter ending January 1, 1908, only twelve of the members rendered the usual statements of their business, and only half of this number paid the royalties, so that for the last quarter of 1907 only \$23,779.65 was collected, while for the first quarter of 1908 the receipts were but \$8,828.26. The receivers have considered the advisability of enforcing the royalty agreements by suit, but as the licensees are situated in so many different jurisdictions the plan was deemed impracticable, and a modification of the tariff decided upon. George B. Selden has also certified his willingness to accept \$60,000 a year as a maximum, while the maximum the E. V. Company is supposed to receive annually amounts to \$150,000.

It is hardly considered likely, however, that the mere reduction of 20 per cent. in the royalties payable will be the panacea that the receivers consider it, as if there has been an almost unanimous refusal to pay 1 per cent. on the catalogue price, the chances of collecting 8-10 of 1 per cent., which is the new basis proposed, do not seem overbright. It is thought that the final outcome of the affair will be the sale at auction of the patent licenses in order to make some attempt at reimbursing the 400-odd creditors of the Electric Vehicle Company, whose only source of income is the Selden patent.

OHIO'S A. A. A. STATE BODY OBTAINS THE UNIFORM LAW

CLEVELAND, May 4.—After many wearisome delays, disappointments, and reverses, the Motor Vehicle bill drafted by the Ohio State Automobile Association of the A. A. A. has been put through the legislature, and is scheduled for signature by the Governor before this is off the press.

When the news was given out that hereafter Buckeye autoists would enjoy State registration, together with the many blessings in the way of regulations which the bill provided, there was considerable rejoicing, not only in this city, but in Cincinnati, Akron, Columbus, Youngstown, Marietta, Lima, Springfield, Toledo, Elyria, Kenton, and many other cities and towns where there are auto clubs affiliated with the State body.

By far the most important clause contained in the bill is the one which makes fast driving *prima facie* evidence of recklessness. On the face of it, this appears to be drawn up for the benefit of the ruralites only, but it was copied from the Connecticut bill, which is admittedly one of the best in the country, and under which it is almost impossible to operate speed traps or to unjustly persecute motorists. In simple English, this clause of the bill works out in this way: John Smith is going along a country road at twenty miles an hour, and sees in front of him several miles of clear, unobstructed, and unoccupied highway.

He lets 'er go, and while traveling at more than forty miles per his time is taken, and he is hauled before the representative of the law at Squeedunk Corners. Admits going forty miles or better, but claims road was clear and there was absolutely no danger either to himself or any one else. Under the *prima facie* clause of the Motor Vehicle bill it is impossible to secure a conviction in this or similar cases.

Five dollars will be the charge for registration of gasoline and steam cars under the new bill, and three for electrics. Dealers and manufacturers pay a \$10 fee and \$2 for every license number desired. There is no charge for commercial vehicles. Motorists touring in from other States are allowed in this State ten days free—after that they must obtain an Ohio license. All surplus funds, estimated by the Secretary of State to be about \$80,000 yearly, will go for repair and maintenance of roads.

Secretary Forbes, of the Cleveland Automobile Club, and Harry Vail, member of the Legislative Committee of the O. S. A. A., have borne the brunt of the work of getting this measure through both branches of the legislature, while an equal amount of credit is due Senator Ward, of Cuyahoga county, who kindly fathered the bill. Henry H. Hower, secretary of the O. S. A. A., has also done some work at Columbus.

INCONSIDERATE AUTOISTS MAY IMPERIL CONNECTICUT LAW

HARTFORD, CONN., May 4.—Complaints are frequently made that of late autoists do not observe a reasonable speed in passing through settled communities in the State of Connecticut. The work of a few reckless spirits has been reflected upon the whole motoring contingent, and unless the unruly ones come down to earth and act human the Connecticut law will be a thing of fond memory only. A flagrant instance is that of a young man who races from one town to another just to establish a record that means nothing to any one or even the car itself.

The Automobile Club of Hartford has prevailed upon its members to be reasonable in the matter of speed, and the forthcoming

endurance run was altered so that the average speed in miles per hour was materially lowered in order that the law could be complied with and have a little left to spare. Entries are coming along in good shape, and everything points to the success of the initial venture of the club. After much discussion, it has been definitely decided that all tire troubles will be penalized.

The membership list of the club continues to grow, and at the last meeting of the governing board fourteen more applicants for membership were admitted. The new clubroom in the Allyn House has become popular, not only with the members but with visiting tourists as well. A hill-climb will be held in September.

AN EDICT OBNOXIOUS TO BOSTON AUTOISTS.

BOSTON, May 4.—The Metropolitan Park Commission's edict went into effect Saturday against the use of tire chains and armored or metal-studded tires on automobiles driven upon any of the roads under its jurisdiction. As the Metropolitan parkways are among the most popular drives for automobilists, some of them being the principal outlets from the city and the main motor thoroughfares to other sections of the State, the prohibition of chains and armored tires will bear hard upon those automobilists who have been accustomed to use such devices to prevent skidding in wet weather. Furthermore, it is feared that the move of the Metropolitan Park Commission will be imitated by other authorities, such as the Boston Park Commission, which controls the most popular drives within the city, and the Highway Commission, which controls the State highways throughout the Commonwealth.

BEWARE OF SPEED TRAP IN WESTFIELD, N. J.

WESTFIELD, N. J., May 5.—There are not a few citizens of this town who welcome the coming and passing of the automobile and would like to see touring through Westfield made a pleasure rather than a pain. One of these is Dr. Frederic Adrian Kinch, who in bicycling days was a very active worker for the rights of cyclists as an officer of the L. A. W. Dr. Kinch has taken upon himself to send out warning of a speed trap that has been laid and working for two Sundays past on Mountain avenue, an eighth of a mile north of the big white Presbyterian church.

SPEED-CRAZED AUTOISTS MAKE ADVERSE LAWS.

NEW HAVEN, CONN., May 4.—Local autoists are in a furore over an attempt which is soon to be made in the board of Aldermen to exclude automobiles from certain congested business streets in the center of the city. This attempt follows the instant killing of a little girl a day or so ago by an automobile carrying a party of Yale students—the fourth fatality within a space of five months, in two of which cars driven by Yale men have figured.

An energetic police campaign against speeding has resulted, traps have been set on all the principal thoroughfares, and a large number of Yale men and prominent autoists have been arrested and heavily fined in the police court. Following the most recent fatality, De Forest Hurlbud, of Chicago, a Yale senior, was fined \$100 with costs in the police court for speeding his steam car up one of the steepest hills in the city.

BELIEVES AGE LIMIT SHOULD BE INCREASED.

WASHINGTON, D. C., May 4.—Leroy Mark, secretary of the Automobile Club of Washington, has suggested to the District Commissioners that the age limit for operators of automobiles be raised from sixteen to eighteen years. He has pointed out that in many instances it has been proven that a sixteen-year-old boy is not capable of handling a car in the crowded streets. Mr. Mark's suggestion has been approved by many automobile owners, and it is likely the Commissioners will raise the limit, which will also be made to apply to minors operating motorcycles.

AUTO CLUBS ARRANGING SEASON'S PROGRAM

LONG ISLANDERS WILL ENTERTAIN ORPHANS.

NEW YORK, May 4.—Whatever may be the fate of this year's Orphans' Day at the hands of Manhattan, its originator and first promoter, the Brooklyn end of the Greater City is not to permit the time-honored celebration to go by default. The Long Island Automobile Club has already headed the subscription list with \$150 by way of starting the fund. It has also appointed the following committee to go ahead with the promotion and report back to the club at its next meeting its plans: Dr. William P. Richardson, Charles C. Cluff, Louis T. Weirs, and W. T. Wintringham. The Long Island Automobile Club did splendid work last year in seeing that the children of the Brooklyn orphanages were given their annual auto ride to Coney Island and outing at Luna Park.

The New York Motor Club, under whose auspices the first annual outing was given the orphans in 1905, having no longer an active existence, it remains for some other organization or group of individuals to see to it that the celebration is not omitted this year. The New York Automobile Trade Association might well undertake the promotion of New York's end of the observance, and in so doing might enlist the assistance of Alfred Reeves, of the A. M. C. M. A., and Harry T. Clinton, of the A. L. A. M., who would doubtless gladly, on behalf of their respective associations, lend a helping hand to this historic automobile charity. Unfortunately, S. A. Miles, general manager of the N. A. A. M., who for the past two years has practically assumed the individual responsibility and the brunt of the labor of Orphans' Day in New York, is absent in Europe.

The Orphans' Day idea originated with W. J. Morgan, who enlisted the cooperation of the then very active New York Motor Club in putting it through. This was done with so great a success that the clubs of other cities to a considerable extent followed suit until the celebration became so general that last year the American Automobile Association set the second Wednesday in June for a national Orphans' Day. The choice of Wednesday, however, did not prove universally convenient for all cities. In consequence, the clubs throughout the country chose their own dates for the most part, though adhering very generally to June. It is now probable that the A. A. A. will officially set an Orphans' Week, during which an "Orphans' Day" will be recommended to be celebrated by organizations interested in the movement.

QUAKER CITY CLUB'S ORPHANS' DAY, JUNE 10.

PHILADELPHIA, May 3.—Wednesday, June 10, has been decided upon by the Quaker City Motor Club as the date for this year's Orphans' Day run. No objective point has as yet been selected, but as last year's run to Willow Grove was hugely successful, it is highly probable that an effort will be made to induce the Rapid Transit Company, owners of the park, to again extend its free use and that of the many attractions there to the parentless little ones. Last year the number of would-be guests far exceeded the capacity of the more than 100 cars loaned for the occasion, and the committee in charge of this year's affair, under the direction of Chairman H. Lewis, proposes to make an early start in an effort to accommodate all who may wish to go. With this object in view, appeals have already been sent to the other clubs, the branch managers and agents, and to individual owners to cooperate with the committee in making this year's Orphans' Day run worthy of the city.

BROOKLYNITES CELEBRATE SUBWAY OPENING.

BROOKLYN, May 4.—One of the features of the recent celebration to commemorate the opening of the subway extension in Brooklyn was the running of 100 decorated cars by members of the Long Island Automobile Club. Charles Jeronim Edwards acted as marshal.

MANITOBANS RECOGNIZE NEED OF UNION.

WINNIPEG, MANITOBA, May 4.—At the annual general meeting of the Winnipeg Automobile Club, these officers were elected for 1908: Honorary president, J. C. G. Armytage; president, Russell M. MacLeod; first vice-president, D. Boyce Sprague; second vice-president, P. C. Andrews; secretary-treasurer, W. E. Wright; committee, R. M. MacLeod, E. C. Ryan, S. M. Belcher, S. C. Dunn, A. A. Andrews, W. C. Power and H. A. Ayhvin; auditors, H. A. Ayhvin and Harry Gooderham. Sixteen new members were proposed and elected, bringing the membership total to nearly 200.

It was decided to affiliate the club with the recently formed Manitoba Motor League, and to hand over to the League a sum of \$2 per head for every member in good standing, in order to make them members of the Manitoba Motor League.

The Manitoba Motor League was formed for the purpose of protecting the interests of all automobile owners in Manitoba and to act as the governing body for all races, endurance contests, etc., held in the province. The league will also arrange for the provision of maps, showing the main routes throughout Manitoba, and will erect sign posts, etc., for the benefit of automobile tourists from other parts of Canada and the American side.

The officers of the League for 1908 are as follows: Honorary president, Hon. Judge Phippen; president, W. A. Elliott; first vice-president, D. Boyce Sprague; second vice-president, Joseph Maw; third vice-president, H. Stevens; secretary, W. R. Bawlf; treasurer, L. R. Barrett; committee: H. A. Ayhvin, E. C. Ryan, F. R. Newman, R. MacLeod, D. W. McDermid, Claude Isbister, H. Rogers, G. Kerr, Dr. Power, T. B. Mitchell, Dr. Montgomery, Mayor Elliott and A. J. Young.

EXCELLENT IDEA OF A. C. OF PHILADELPHIA.

PHILADELPHIA, May 4.—The Automobile Club of Philadelphia is responsible for an innovation which the other local clubs and organizations throughout the State will probably copy in the near future. It is the naming of an Inter-club Relations Committee, whose particular business it shall be to cooperate with similar committees named by other clubs, in forwarding objects in the interests of automobilists in general and in securing uniformity of action thereon.

In a circular issued last week to automobilists generally, the club calls attention to several traps recently located in the country roundabout, and urges everybody to exercise caution, especially when in the neighborhood of these pitfalls, some of which, the circular avers, are designed as revenue producers. Among the traps mentioned is that on the main Philadelphia-New York route, between Highland Park and New Brunswick. Complaints of the treatment meted out to the unlucky automobilists at that point, says the circular, would indicate that this particular trap was "designed for the special purpose of collecting revenue." Other traps mentioned are on the Lancaster pike, opposite the Catholic seminary at Villanova; on Argyle avenue, between Haverford avenue and Lancaster pike, in Lower Merion township; on the stretch of road between Janney station and Langhorne, in Middletown township, and on the road leading through and beyond Hulmeville. The club proposes to issue these warning bulletins from time to time, as complaints are filed.

JOYCE REELECTED PRESIDENT MINNESOTANS.

MINNEAPOLIS, MINN., May 4.—At the annual meeting of the Minnesota State Automobile Association the following officers were elected: President, Frank M. Joyce, Minneapolis; vice-president, Reuben Warner, St. Paul; secretary and treasurer, Dr. W. H. Card, Minneapolis. The annual dues of club members were raised to \$1 per annum. The old rate was 50 cents.

C. H. Kohler, chairman of the legislative committee, presented a report in which he recommended to tax of \$10 or \$20 on every automobile in the State, the money thus raised to be devoted to the making of good roads. The association favored legislation along this line. The association adopted a State emblem, the design representing interlocked wheels with the name of the corporation inscribed on the rims thereof, together with the initials "A. A. A." for the American Automobile Association, inscribed on the face thereof. It is proposed to add to this emblem the name of each city in which there is a club.

BURLINGTON CLUB BECOMES VERY ACTIVE.

BURLINGTON, VT., May 4.—One of the most enthusiastic and best attended meetings that the Burlington Automobile Club has ever held took place at the Van Ness House last Saturday evening. President Hawley was in the chair, assisted by Secretary E. A. Brodie, and a number of new members were admitted. The chair appointed a committee on by-laws, consisting of W. A. Suydam, C. L. Woodbury, and G. A. Churchill, while Capt. E. P. Woodbury, B. L. Kent, and F. L. North were constituted a committee on good roads, and A. C. Whiting, A. G. Whittemore, and J. S. Patrick were appointed a committee on legislation. Plans were made for a Decoration Day parade, and a banquet, to be held some time during the third week in May. W. A. Suydam, of the *Daily News*, was appointed corresponding secretary.

NEW ENGLAND AERONAUTS DINE AND TALK.

BOSTON, May 2.—The first dinner of the Aero Club of New England was held this evening at the clubhouse of the Boston City Club, and about fifty members and guests were present. Prof. A. Lawrence Rotch presided. Committees were appointed to investigate dirigible airships, and H. H. Clayton was appointed a committee to investigate the cost of placing a club balloon in commission. Charles E. Hellier spoke on the policy of the club, and advocated that it proceed along scientific rather than sporting lines, encouraging the inventors of New England who are working at the problems of aerial navigation. A. R. Shrigley, secretary of the club, outlined the new legal difficulties which will arise when the air is commonly used. Such things as eminent domain, trespass, and the like, will cause much litigation.

LAWRENCE, MASS., CLUB IS FLOURISHING.

LAWRENCE, MASS., May 4.—At the annual meeting of the Lawrence Automobile Club, held at the Essex House, the following officers were elected for the ensuing year: President, J. Frank James; vice-president, Walter Coulson; secretary-treasurer, Harry K. Lawrence. Dr. Charles G. Pierce, James C. Forbes, and Albert S. Lang comprise the board of directors. Among the events planned are regular weekly runs and an Orphans' Day parade. A committee consisting of J. Frank James, John O'Neill, and Charles G. Pierce was appointed to confer with the superintendent of streets relative to grade crossings. The club now has ninety members and is in a flourishing condition.

A BIGGER ORMOND-DAYTONA CLUBHOUSE.

DAYTONA, FLA., May 2.—At the recent annual meeting of the Florida East Coast Automobile Association, J. B. Foster was re-elected president. The other officers elected were: First vice-president, S. H. Gove; second vice-president, J. H. Allen; secretary, T. E. Fitzgerald; treasurer, F. N. Conrad; board of directors, R. M. Bond, A. Hilliard, J. B. Moore, E. F. Oates, H. B. Welch, and T. E. White. It was voted at this meeting to build an addition to the clubhouse and also erect bath-houses.

OHIO'S STATE BODY ACTIVELY PROGRESSIVE.

CLEVELAND, April 4.—The Ohio State Automobile Association is coming in for a great deal of praise these days, for, in addition to organizing an automobile club in Columbus and getting the Motor Vehicle bill through the legislature, a new club has been organized in Kenton. The Dayton club will also reorganize.

THE AUTOMOBILE CALENDAR. AMERICAN.

Shows and Meetings.

- June 25-27.....—Detroit, Third Annual Summer Meeting of Society of Automobile Engineers.
- Dec. 31-Jan. 7.....—New York City, Grand Central Palace, Ninth Annual Automobile Show, conducted by the American Motor Car Manufacturers' Association, with Exhibits by the Importers' Automobile Salon, Inc., and Motor and Accessory Manufacturers, Inc. Alfred Reeves, general manager, 29 West 42d St.
- January, 1909.....—New York City, Madison Square Garden, Ninth Annual National Show of the Association of Licensed Automobile Manufacturers. (Exact date to be announced.)
- February, 1909.....—Chicago, Coliseum and First Regiment Armory, Eighth Annual National Exhibition, National Association of Automobile Manufacturers. (Exact date to be announced.)

Race Meets, Hill Climbs, Etc.

- May 15.....—Chicago, Algonquin Hill Climb, Chicago Motor Club.
- May 16.....—Hartford, Conn., 200-mile Endurance Run, Automobile Club of Hartford.
- May 30.....—Boston, Readville Track, Race Meet, Bay State Automobile Association.
- May 30.....—Bridgeport, Conn., Sport Hill Climb, Bridgeport Automobile Club.
- May 30.....—Wilkes-Barre, Pa., Glant's Despair Hill Climb, Automobile Club of Wilkes-Barre.
- May 30.....—San Francisco, Endurance Run under the auspices of the Automobile Dealers' Association.
- June 6.....—Worcester, Mass., Dead Horse Hill Climb, Worcester Automobile Club.
- June 24-27.....—Chicago, 1,200-mile Reliability Run, Chicago Motor Club.
- July 7-8.....—Buffalo, N. Y., National Convention of the American Automobile Association.
- July 9.....—Buffalo, N. Y., Start of the Fifth Annual A. A. A. Reliability Touring Contest.
- Sept. 5-9.....—San Francisco-Los Angeles Reliability Run, Automobile Dealers' Association of San Francisco.
- Sept. 14.....—Chicago, Annual Economy Run, Chicago Motor Club.

FOREIGN.

Shows.

- May 17-31.....—Austria, Budapest Automobile Show.
- May 17-June 2.....—Moscow, Russia, International Automobile Exposition, Automobile Club of Moscow.
- December.....—Paris, Eleventh Annual Salon de l'Automobile, Grand Palais, Automobile Club of France.

Race Meets, Hill Climbs, Etc.

- May 7.....—Sicily, Palermo, Targa Florio Circuit, Voiturette Race, Automobile Club of Italy.
- May 11-16.....—Ireland, Irish Reliability Trials.
- May 1-31.....—Automobile Taxicab Competition, France, Automobile Club of France.
- May 10.....—Sicily, Targa Florio, Automobile Club of Italy.
- May 31.....—Russia, St. Petersburg to Moscow Race.
- June 1-18.....—Reliability Trials for Pleasure Cars, Automobile Club of Great Britain.
- June 14.....—Mount Cenis Hill Climb, for Voiturettes.
- June 9-17.....—Touring Competition for the Prince Henry of Prussia Prize, Germany, Imperial Automobile Club.
- June 15-19.....—Scotland, Scottish Reliability Trials.
- July 6.....—Voiturette Grand Prix, Dieppe Circuit (Automobile Club of France).
- July 7.....—Grand Prix of Automobile Club of France, Dieppe Circuit.
- July 13-17.....—Ostend, Belgium, International Race Week, Automobile Club of Ostend.
- July 20-30.....—Ardennes Circuit Races and Coupe de Liedekerke, Automobile Club of Belgium.
- Aug.....—France, Coupe de la Presse, Automobile Club of France. (Exact date to be announced.)
- Aug. 29-30.....—France, Mont Ventoux Hill Climb, Vauclussen Automobile Club.
- Sept. 1-8.....—French Voiturette Contest, auspices of "L'Auto."
- Sept. 6.....—Bologna, Italy, Florio Cup Race, Automobile Club of Bologna.
- Oct. 11.....—Berlin, Germany, Gordon Bennett Balloon Race, Aeronautical Club of Berlin.

A. L. A. M. TESTS A. C. A. DYNAMOMETER—RESULTS LATER

AS a result of the discrepancy in the showing of the cars of certain of the members of the Association of Licensed Automobile Manufacturers, when tested out on the dynamometer of the Automobile Club of America, as compared with tests of the makers themselves, an imposing delegation from the Mechanical Branch of the Licensed association took possession of the dynamometer testing plant on Tuesday last, at the invitation of the club. The morning was spent in carrying out sundry tests to learn just where the vulnerable points of the apparatus lay, while the checking tests themselves were carried out in the afternoon. It was the consensus of opinion of the visiting engineers that the slip between the drums of the dynamometer and the driving wheels of the car under test was excessive, particularly at the higher speeds, and one of the chief objects of the tests was to learn exactly what this amounted to.

A. L. Riker acted as starter, while Henry Souther was posted at the left-hand driving wheel of the car with a revolution counter, and John G. Utz, similarly equipped, took a position at the right-hand wheel. Hiram Maxim kept watch of the speed indicator and Russell Huff did similar duty at the traction indicator. A Thomas-Detroit 40-horsepower runabout was run on the drums and half-minute tests carried out at speeds of 20, 30, 35, 40, 50 and 60 miles an hour. On the first test the rear wheel turns showed a discrepancy of half a turn, the right giving 92.5 and the left 93—a difference so small as to be accounted for by

errors in reading. Two of the spark plugs cracked and none of the A. L. A. M. standard plugs being available, the Thomas gave way to a Packard touring car which was put through eight different half-minute tests at from 20 to 60 miles an hour. It was succeeded by a Locomobile 45-horsepower roadster, of which Mr. Riker took the wheel, turning over the job of timing to Coker F. Clarkson, while the latter ceded his duties as checker to H. T. Clinton. The differences in the readings at the rear wheels were much greater at the higher speeds, ranging as high as five to ten revolutions apart.

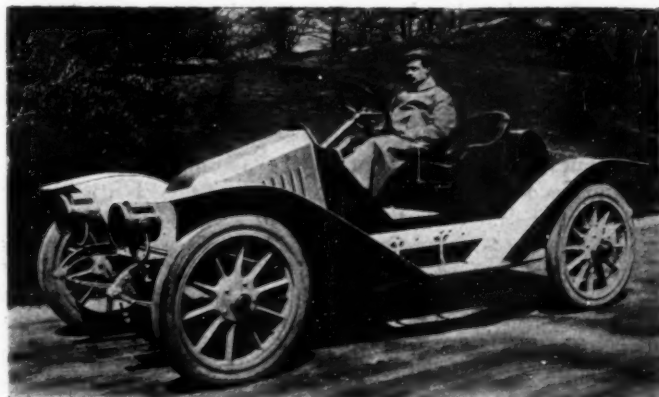
After the Locomobile had been put through its paces at the higher speeds, at which it was found much easier to take accurate readings, as the tapes continually fluctuated, more or less, at the lower rates of travel, and the necessary data carefully noted for reference, the visiting engineers adjourned to one of the committee rooms on the lower floors of the clubhouse to figure out the results of the data already compiled. These calculations will be checked with the figures shown by the tests of the makers on the same cars, just prior to sending them to the club dynamometer for testing. Should any great discrepancy appear, it was the intention of the visiting delegation to undertake further tests to check up the results. The concrete results of the visit will take the form of a report to be made public within a few days, and the contents of the document will be looked forward to with considerable interest by the trade.

PHOTO TOLD TRUTH; CAPTION ERRONEOUS.

An erroneous caption under one of the illustrations on page 596 in THE AUTOMOBILE's story of the Briarcliff race stated that a change of tires was taking place on the Panhard car, which really stopped at the Continental station for a supply of gasoline and water. Anyone who gave this picture a close scrutiny would have noted the fact that nothing was being done to the tires, but gasoline and water were being taken on, for it is a fact that this particular Panhard, fitted with Continental tires, went through the race without any change of tires.

P-S SKIMABOUT OUTPUT IS INCREASED.

It was at first intended by the Palmer & Singer Manufacturing Company, of New York City, to make only 25 cars of its new Skimabout type, but the first car placed on exhibition in the company's salesrooms, 1620-1624 Broadway, has resulted in so many immediate sales that the number will be greatly increased. The Skimabout has 28-30 horsepower and is of short wheelbase, which, its makers state, particularly adapts it to city use, it being turnable in the narrowest streets and well fitted to take advantage of openings in traffic. Its power is ample for country touring and it is capable of high speed. Its price is \$1,950.



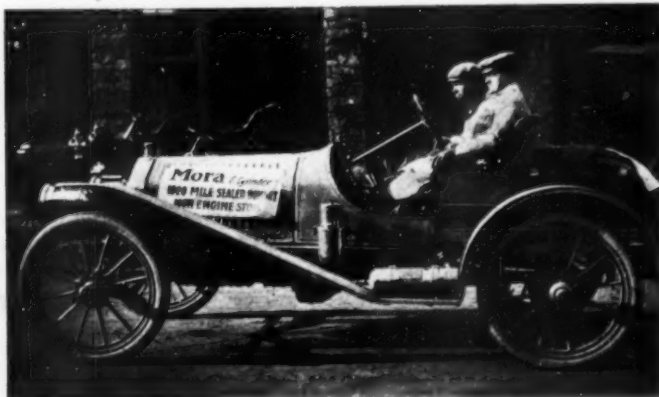
Chas. A. Singer, Jr., in the Palmer-Singer Skimabout.

MOST UNUSUAL PHOTO OF THE BRIARCLIFF.

Through an oversight, the excellent action picture of Isotta No. 11 in the Briarcliff race, published in the April 30 issue, page 603, was not marked "Copyright, 1908, Pictorial News Company." The picture was an unusual one, and the Pictorial News Company photographer has reason to be proud of his achievement. N. W. Penfield is the head of this company, the offices of which are located at 138 West Forty-second street, New York City.

MORA MAKES ANOTHER RELIABILITY RUN.

BUFFALO, May 4.—After having had the power plant of a six-cylinder Mora demonstrator, taken from the stock of the Buffalo representatives of the company, officially sealed by Secretary Dai H. Lewis, of the Automobile Club of Buffalo, H. B. Odell started at 11:20 A.M., April 23, for a 1,000-mile reliability run under sealed bonnet conditions. The test was made on the streets of Buffalo and on the roads, 30 to 35 miles outside the city. The run was completed in 47 1-2 hours actual running time, or an average of 21 miles an hour, making allowances for tire repairs. Several press representatives and members of the automobile club acted as observers.



Sealed-bonnet Mora Starting on 1,000-mile Run.

METZGER OUT: BENSON CADILLAC SALES MANAGER

DETROIT, May 4.—Ernest R. Benson, who on April 30 succeeded William E. Metzger as sales manager of the Cadillac Motor Car Company, is, through his former connections, well known to the trade. He was with the Pope Manufacturing Company for twelve years and rose to be secretary of one of the companies connected with them. He was with A. G. Spalding for seven years.

In 1896 Mr. Benson went with the Hartford Rubber Works Company, opening their Boston branch, and soon had charge of the New England territory for that company. He remained with them for eleven years and finally rose to secretary for the company having charge of the commercial end.

His connection with the Cadillac Motor Car Company began December 1, 1907. The Cadillac Company has, during the past few months, made a great many changes in its method of selling, also a large number of changes in their sales organization, and these changes have already accomplished much for the company.

Vigorous methods have been used to post dealers on the selling points and advantages of Cadillac cars. The company reports that this work is showing most gratifying results.

William E. Metzger has resigned the sales management of the Cadillac Motor Car Company, of Detroit. In a brief telegram to *THE AUTOMOBILE*, Mr. Metzger says that his resignation terminated his connection with the company.

William E. Metzger is one of the pioneers, ablest and most prominent men in the automobile industry. He is second vice-president of the National Association of Automobile Manufac-

turers and a member of the executive committee of the Licensed Association of Automobile Manufacturers.

Like many of the successful men in the motor car industry, Mr. Metzger had the advantage of a preliminary training in the bicycle business. In those days he was also a great salesman, and represented in Detroit at different times several of the leading makes of bicycles.

With the coming of the automobile, Mr. Metzger was early in the new field as Detroit agent for the Columbia and the Winton. In fact, he has always maintained his retail establishment. In 1902 he interested Messrs. Percy, Black, White and Leland in the formation of the Cadillac Company. It had for its foundation the Detroit Automobile Company, which built cars for Henry Ford and was bought by the new company.

Up to two years ago Leland and Faulkner built the engines for the Cadillac Automobile Company as a separate concern. Then the latter company was reorganized under the name of the Cadillac Motor Car Company, the firm of Leland and Faulkner being taken into the new combination.

Mr. Metzger is known as the most experienced and is rated by many as the best sales manager in the automobile trade. His connection with the Cadillac companies has always been in this capacity. Under his sales management Cadillac cars attained an enviable popular and numerical vogue.

Mr. Metzger has not announced as yet his plans for the future. Besides his big retail business in Detroit, he is reported to be financially interested in several motor car making concerns in that city. An announcement is expected.

MICHELIN OPPOSES PRICE CUT FOR CLUB.

Edouard Michelin, of Michelin & Co., the big French tire-making firm, has resigned the presidency of the Automobile Club d'Auvergne, as a protest against the club's alliance with Association Générale Automobile with a view to securing for its members tires at cut prices. In view of a threatened similar movement in this country headed by a club which has loudly protested its policy of fostering the industry, M. Michelin's letter is interesting and very much to the point. It follows:

Grasse, France, 25th Feb.

The affiliation of the Automobile Club d'Auvergne with the Association Générale Automobile, which offers as a special inducement to its members the fact that they will get a rebate on all automobile supplies, in particular tires, is of a nature to cause great prejudice to automobile agents.

I consider this an unfair proceeding against the agents, who are the indispensable contributors to automobilism. It would, indeed, if the public's common sense and justice did not prevail, rob these commercial men of a profit to which they are legitimately entitled, and which is not exaggerated. I, therefore, do not wish to form part of it, not even indirectly.

I do not know what other rubber firms of Clermont-Ferrand intend doing, but, as far as I am concerned, I beg to confirm my resignation, which Mr. Borel handed you on my behalf, when you voted for this new arrangement.

I deeply regret to leave the Automobile Club d'Auvergne, and I can only leave in order not to follow the new track in which it moves.

EDOUARD MICHELIN.

DEMOCRATIC POLITICIANS TO TOUR TO DENVER.

CHICAGO, May 4.—Roger C. Sullivan, Democratic committeeman for Illinois to the convention at Denver next July, has instituted a brand new departure in the political use of the automobile by planning a run to the Democratic convention city from here. The party will consist of a number of congressmen and prominent Democratic politicians, who will utilize four Studebaker cars, while a Studebaker truck will follow the train as baggage carrier. The start will be made June 27.

OPENING OF AJAX-GRIEB NEW PLANT.

TRENTON, N. J., May 5.—The opening of the new additions to the tire factory of the Ajax-Grieb Rubber Company will be celebrated next Monday with no little ceremony. Governor Fort has accepted an invitation to turn on the steam. Many prominent automobilists and tradesmen are expected to take part in the inaugural celebration. The New York party will leave on a special train over the Pennsylvania road in charge of Horace DeLisser, president of the company, while William Grieb will attend to the delegation that leaves on the special from Broad street station, Philadelphia, at 1:40 P. M. The New York party will leave Twenty-third street at 11:55 P. M., and from Cortlandt and Desbrosses streets at 1 P. M. The special trains carrying the delegations will run on the siding alongside the factory, and after the plant has been examined and the visitors shown how tires are made, from the first work on the pure rubber to the finished article, there will be a dinner.

The new buildings are a notable addition to the industrial development of Trenton, and are the best possible proof of the success that Ajax tires have attained during the past few years. The new buildings of brick and cement will add something like 55,000 square feet to the present capacity.

FORD INTERESTS ASK SECURITY FOR COSTS.

An interesting development in the so-called Selden Patent litigation, consisting of the various actions of the Electric Vehicle Company, of Hartford, Conn., now in the hands of receivers, against the Ford Motor Company and others, which is pending in the United States Circuit Court for the Southern District of New York, is brought to light in a motion which will be made by R. A. Parker, of counsel to the Ford interests, through the New York attorneys, Cardozo & Nathan, to have the complainants deposit security for costs, and that the proceedings may be stayed, pending such deposit. This motion is set for hearing Friday, May 8.

BRIEF ITEMS OF NEWS AND TRADE MISCELLANY

J. Burton Lippincott, the Philadelphia publisher, has become a convert to the six-cylinder idea, his latest acquisition being a six-cylinder Winton limousine.

Harry Knox, of the Atlas Motor Car Company, Springfield, Mass., has just secured an additional order from the New York Transportation Company for 300 more of the two-cycle taxicabs equipped with the special Atlas motor.

The Reo Motor Car Company, Lansing, Mich., has just declared a dividend of 20 per cent. to its stockholders, and, according to the officers of the company, it has had a very prosperous year, while the prospects for the present season are better than ever.

In the description of the Acme igniter, made by the Pittsfield Spark Coil Company, Dalton, Mass., which recently appeared in THE AUTOMOBILE, it was stated that the igniter was designed to be used in connection with a vibrating coil. This should have read "non-vibrating," as the igniter is of the synchronous type embodying a high-tension distributor.

Among the American concerns who are already making plans to enter cars in the Vanderbilt race, is the Acme Motor Car Company, Reading, Pa., H. M. Sternberg, the president of the company, being authority for the statement that negotiations have already been undertaken, looking to the engagement of Louis Strang to pilot the Acme entry.

Colonel Sprague, of canopy top and umbrella fame, who has made the town of Norwalk, Ohio, one of the best known places of its size on the map, reports that the Sprague Umbrella Company is besieged with customers, the plant being run to its full capacity every minute of the time, which does not look very much like hard times.

Application has been made by the receivers of the Pope Manufacturing Company, Albert L. Pope and George A. Yule, for permission to continue the business for four months from April 28. They will also ask the court to pass on their semi-annual report, showing receipts of \$900,743, disbursements of \$822,952, and a balance of \$77,791. The receivers report that business is satisfactory and that there is a substantial demand for new cars.

The verdict against the Matheson Motor Car Company, Wilkes-Barre, Pa., in favor of Fred S. Dickinson, of New York, granting him \$16,000 of the stock of that company, which he claimed was due him for services rendered by him in behalf of Charles R. Greuter in securing the latter his position with the Matheson Company, was set aside by Judge Archibald on April 30, sitting in the United States Circuit Court for the District of Pennsylvania, at Scranton.

February and March, 1908, were the best months that the Firestone Tire & Rubber Company, Akron, O., has had in its manufacturing career, while April has eclipsed all sales records. The central section of the new Firestone plant has just been completed, and the machinery for the manufacture of both solid and pneumatic tires has been installed. It replaces the one story structure which was the original factory, and is the fourth and largest addition of its kind to a factory devoted to the

manufacture of rubber tires, that has been made in this country in the last four years.

To those who know the road conditions, the new record from San Francisco to Los Angeles, Cal., made by a 30-horsepower White steamer, is considered a remarkable performance. The trip is 478 miles and was made in 17 hours and 17 minutes, 56 minutes better than the previous record, which has stood for over a year. Since autos were introduced on the Pacific slope the road record between these two cities has engaged the activities of ambitious California drivers, as the holding of the record gives a big prestige to the successful car. The road traveled is of dangerous character and presents many obstacles to rapid travel.

One of the most interesting entries in the A. A. A. reliability tour this July, is a regular stock model 15, Elmore touring car, which was received by the San Francisco agents of the Elmore company, March 3, 1906. This car is the holder of a big string of records, and it is the purpose of its makers to have it continue its triumphant way. It has been driven in every race meet, road race, hill climb and endurance run in southern California, since the time it was sent to that State. In every endurance run, it has made a perfect score,



On the Briarcliff Course.

How the National Sales Corporation utilized an advantageous opportunity to show the public what they sell.

and in the 50-mile motor derby at Los Angeles, May 12, 1907, it won the cup from a number of competitors. Its next victory was on the occasion of the 30-mile Lake-side motor derby race, in which it made the 30 miles with full load in regular touring order, in 39 minutes. To date it has run 16,000 miles without being taken down, or having had its bearings touched. It will be run to Cleveland this summer and after finishing the reliability tour, will be returned to Los Angeles in time to take part in the Mount Baldy race.

RECENT TRADE REMOVALS.

The Isotta Import Company moved from its old quarters at 12 West Thirty-third street, to the Palmer & Singer building, at 1620 Broadway, C. M. Hamilton, manager of the company, having found a location on "automobile row" a necessity.

NEW AGENCIES ESTABLISHED.

The firm of Stade & Farrow, which was recently organized to handle the Grout car in Boston, has established headquarters at 94 Massachusetts avenue.

Benjamin Gerdelman has just been appointed the St. Louis representative of the

Jones Speedometer Company and will look after the interests of this firm in St. Louis and vicinity. Mr. Gerdelman will still retain his agency connection with the With-erbee Igniter Company, with whom he has been associated for a number of years.

Frederick Phillips, Jacksonville, Fla., has taken on the Franklin line for that city and vicinity and will handle that line of cars exclusively. The automobile business is a new venture for Mr. Phillips, who is a well-known civil engineer, formerly of Utica, N. Y., but is now engaged in building a concrete retaining wall along the St. John river in Florida, which will reclaim land estimated to be worth \$240,000. He will build a fine garage and salesroom and give the business much of his personal attention.

PERSONAL TRADE MENTION.

C. M. Strieby, formerly with the Ford Motor Car Company, and president of the Ford Motor Club, is now connected with the sales forces of the L. J. B. Company, Philadelphia agents for the Thomas line.

B. C. Hamilton, formerly vice-president of the Hamilton Automobile Company, Chicago, has just joined the agency forces of the local Studebaker representatives, and will act as manager of the sales department in that city.

E. M. Beauchamp has just been added to the sales department of the E. R. Thomas Detroit Company, and will act as assistant to Manager Whipple. Mr. Whipple was formerly connected with the Locomobile Company.

John S. Johnson, formerly champion cyclist and skater, who was lately assistant to Manager Earl Kiser, of the Pittsburgh branch of the Winton Motor Carriage Company, has been appointed Winton sales representative for Minnesota, and will take up his duties in that field at once.

Edward B. Busby, formerly with the Midvale Steel Company, has recently become associated with the selling department of the Electric Welding Products Company, Cleveland, O., formerly the Cleveland Cap Screw Company. Mr. Busby has quite a wide acquaintance among automobile, engine and machinery manufacturers.

B. J. Dollins, for the past two years associated with the Continental Tire Company, has just severed his connection with that concern to join the selling forces of the Pennsylvania Tire Company. He will act as traveling representative in the western territory. According to W. D. Rockwell, sales manager of the company, a western branch house is shortly to be established in Denver.

George Salzman, for six years assistant superintendent of the E. R. Thomas Motor Company's factory at Buffalo, has just resigned from that post to become treasurer and general manager of the American Motor Car Company, of Atlanta, Ga., sales agents for the Thomas Flyer. Mr. Salzman's driving won him many friends on the occasion of the Savannah races, and the Atlanta company placed a \$65,000 order on condition that Mr. Salzman was to be released to take the management of their company. Should the Vanderbilt race take place on the Savannah course, Salzman will have the wheel of a Thomas.

INDEX TO ADVERTISERS

Abrams-Mason Co.	91	Corbin Motor Vehicle Corp.	90	Jackson Automobile Co.	60	Picrome Hide Co.	58
Acetylene Gas Illuminating Co.	56	Cornish-Friedburg Motor Car.	60	Jeffery & Co., Thos. B.	93	Pierce Engine Co.	61
Acme Motor Car Co.	60	Correspondence School of Motor Car Practice.	56	Jeffery-DeWitt Co.	95	Pioneer Brass Works.	58
Adams Co.	60	Cotta, Chas.	61	Jencick Motor Mfg. Co.	71	Pirelli & Co.	62
Aerocar Motor Co.	60	Cowles & Co., C.	55	Johnson Sporting Goods Co., I.	62	Pittsfield Spark Coll Co.	71
Ajax-Grieb Rubber Co.	62	Crown Soap Co.	68	Jones Speedometer	72	Prest-O-Lite Co.	101
Almy Water Tube Boiler Co.	55	Cullman Wheel Co.	55	Jones, W. H.	55	Progressive Mfg. Co.	75
Allen Auto Specialty Co.	67	De Luxe Motor Car Co.	60	Joyce Cridland Co.	92	Quinby Co., J. M.	59
American Ball Bearing Co.	73	Diamond Chain & Mfg. Co.	94	K. W. Ignition Co.	99	Raimes & Co.	55
Am. Brass & Alum. Works.	58	Diamond Rubber Co.	98	Keystone Lubricating Co.	97	Raimes & Co.	56
American Bronze Co.	76	Dien, Ch.	92	Kellom & Co., Chas. F.	65	Rajah Auto Supply Co.	59
American Distributing Co.	83	Dietz Co., R. E.	67	Kimball Tire Case Co.	70	Randall-Faichney Co.	73
Amer. Motor Car Sales Co.	103	Dixon Crucible Co., Joseph.	68	King Top Mfg. Co.	59	Reeves Pulley Co.	58
American Motor Truck Co.	77	Dorris Motor Car Co.	84	Kinsey Mfg. Co.	58	Regent Tire Co.	80
Anderson Forge & Machine Co.	58	Duff Mfg. Co.	55	Kissell Motor Car Co.	73	Remy Electric Co.	56
Apperson Bros. Automobile Co.	87	Duplex Coll Co.	56	Konigslow, Otto	58	Renault Freres	Cover
Appliance Mfg. Co.	63	Duplex Co.	68	Lavalette & Co.	56	Republic Rubber Co.	100
Ashtabula Bow Socket Co.	59	Earl Motor Car Co.	60	Lavigne Mfg. Co.	55	Rex Wrench Co.	75
Ashton Valve Co.	56	Echo Mfg. Co.	61	Lear Automobile Co., Oscar.	107	Richardson Engineering Co.	69
Atlas Motor Car Co.	60	Eclipse Machine Co.	58	Leather Tire Goods Co.	107	Robert Instrument Co.	59
Audel & Co.	68	Eco Mfg. Co.	61	Limousine Carriage Mfg. Co.	59	Royal Equipment Co.	56-83
Aurora Motor Works.	60	Edmunds & Jones Mfg. Co.	55	Lipman Mfg. Co.	55	Rushmore Dynamo Works.	105
Austin Automobile Co.	98	Eldredge Electric Mfg. Co.	63	Lobe Pump Co.	56	Salisbury Wheel Mfg. Co.	55
Auto Car Equipment Co.	81	Elite Mfg. Co.	80	Locke & Co.	39	Samson Leather Tire Co.	65
Auto Pump Co.	62	Ellsworth, J. M.	106	Lockwood Bros.	58	Sanford Mfg. Co., F. C.	58
Auto Time Saver Co.	62	Empire Automobile Tire Co.	84	Locomobile Co.	60	Schacht Mfg. Co.	96
Autocar Co.	92	Empire State Tire Co.	70	Long Arm System Co.	82	Selden Motor Vehicle Co.	68
Automobile Blue Book.	64	Excelsior Supply Co.	70	Long Mfg. Co.	75	Shaler Co., C. A.	Cover
Automobile Supply Co.	56	Fairmount Engineering Wks.	70	Macbeth-Evans Glass Co.	91	Shawver Co.	55
Automobile Utilities Co.	62	Fedders Mfg. Works.	77	McCord & Co.	63	Smith Co., A. O.	88
Auto-Shine Co.	55	Firestone Tire & Rubber Co.	67	McDermott & Co.	63	Smith Mfg. Co., R. H.	66
Avery Portable Lighting Co.	71	Flintje, Ernst	89	Manhattan Storage Co.	55	Spacke Machine Co.	54
Babcock Electric Carriage Co.	93	Flandrau & Co.	89	Marvel Mfg. Co.	86	Spare Motor Wheel of Am.	90
Bailey & Co., C. J.	50	Forest City Motor Car Co.	96	Masury & Son, John W.	89	Speed Changing Pulley Co.	77
Baker Motor Vehicle Co.	60	Franklin Mfg. Co., H. H.	111	Matheson Motor Car Co.	95	Speedwell Motor Car Co.	61
Baldwin Chain & Mfg. Co.	56	French Mfg. Co.	65	Maxwell-Briscoe Motor Co.	108	Spicer Universal Joint Mfg. Co.	58
Bartholomew Co.	83	Fry, T. C. & W. L.	56	Mayo Radiator Co.	56	Spittdorf, C. F.	72
Banker Bros. Co.	77	G & J Tire Co.	70	Mechanical & Electrical Mfg. Co.	65	Sprague Umbrella Co.	78
Barnett Drop Forging Co.	54	Garford Motor Car Co.	93	Merchant & Evans Co.	33	Springfield Portable House Co.	90
Beaver Mfg. Co.	91	Gearless Transmission Co.	85	Merritt & Co.	58	Standard Automatic Lub. Co.	56
Behen-Faught Motor Car Equip. Co.	56	Geisler Bros.	55	Mezger, C. A.	88	Standard Co.	90
Bellfuss Motor Co.	76	Gemmer Mfg. Co.	72	Michellin Tire Co.	62	Standard Connecting Rod Co.	66
Beloit Supply Co.	61	General Accumulator and Battery Co.	66	Midland Motor Car Co.	65	Standard Welding Co.	72
Black Mfg. Co.	75	Gibney & Bros., Jas. L.	56	Miller Bros.	59	Star Speedometer Co.	88
Blasier Mfg. Co., M. E.	59	Goldberg Motor Car Devices Mfg. Co.	57	Miller, Chas. E.	84	Steam Carriage Boiler Co.	55
Bosch Magneto Co.	95	Gordon Automobile Supply Co.	73	Miller & Starr.	56	Stearns Co., F. B.	61
Boston Auto Gage Co.	55	Graves & Congdon Co.	82	Mitchell Motor Car Co.	60	Stevens-Duryea Co.	100
Bowser & Co., S. F.	86	Grout Bros. Auto Co.	60	Model Automobile Co.	60	Studebaker Automobile Co.	103
Bowyer & Co., John.	102	Ham Mfg. Co., C. T.	82	Moline Automobile Co.	61	Success Auto Buggy Co.	61
Brennan Motor Mfg. Co.	86	Hans, Edmund E.	76	Monitor Distributing Co.	62	Supplementary Spiral Spring.	70
Brown Co.	72	Hardy Co., The R. E.	62	Moon Motor Car Co.	85	Swinehart Clincher Tire Co.	75
Brownell Motor Co., F. A.	55	Harris, Chas. J.	83	Mora Motor Car Co.	Cover	Syracuse Aluminum & Bronze Co.	89
Buckeye Jack Mfg. Co.	65	Harris Oil Co., A. W.	72	Morgan & Wright.	62	Thomas Spring Works.	80
Buckeye Mfg. Co.	60	Hartford Suspension Co.	56	Mosler & Co., A. R.	61	Thomas Motor Co., E. R.	77
Buffalo Carburetor Co.	83	Hatcher Auto Parts Co.	75	Moss Photo Engraving Co.	104	Thompson Sons Co., J. P.	62
Buob & Scheu.	59	Haynes Automobile Co.	85	Motor Car Specialty Co.	80	Timken Roller Bearing Axle Co.	99
Burlington Basket Co.	65	Healy Leather Tire Co.	62	Motz Clincher Tire & Rub. Co.	62	Tincher Motor Car Co.	87
Byrne-Kingston Co.	89	Hedgeland Mfg. Co.	97	Mound Tool & Scraper Co.	76	Torbenen Motor Car Co.	54
Cadillac Motor Car Co.	60	Heinze Electric Co.	67	Mutty Co., L. J.	59	Tray Plate Battery Co.	76
Cameron Car Co.	60	Heitger Carburetor Co.	56	National Auto Accessories Co.	55	Trebert Gas Engine Co.	61
Canton Drop Forge & Mfg. Co.	58	Hercules Electric Co.	69	National Motor Vehicle Co.	93	Trojan-Hydro Pneumatic Wheel Co.	84
Capitol Auto Co.	59	Herz & Co.	63	Neustadt Auto & Supply Co.	92	Tucker, C. F.	55
Carr, F. S.	59	Hess-Bright Co.	58	Never-Miss Spark Plug Co.	56	Uncas Specialty Co.	66
Champion Co., A.	78	Hicks Speed Indicator Co.	77	New England Motor Co.	76	U. S. Fastener Co.	73
Chandlee & Chandlee.	64	Hill, Geo. Q.	55	New York Gear Works.	59	Veeder Mfg. Co.	94
Chase & Co., L. C.	88	Hoffecker, Geo. W.	55	N. Y. Sporting Goods Co.	59	Vehicle Specialty Corp.	66
Chase-Shawmut Co.	54	Holley Bros. Co.	63	N. Y. & N. J. Lubricant Co.	82	Warner Instrument Co.	102
Chicago & Alton Ry.	67	Holsman Automobile Co.	69	Nichols & Co., D. P.	59	Watt-Detroit Carburetor Co.	86
Clark, E. S.	55	Holt & Beebe	81	Nordyke & Marmon Co.	60	Wayne Automobile Co.	61
Cleanola Co.	65	Hotel Cumberland	81	Northway Motor & Mfg. Co.	56	Weed Chain Tire Grip Co.	69
Cleveland Spark Plug Co.	83	Hotel Douglas Manor Inn.	81	Nuttall Co., R. D.	58	Welch Motor Car Co.	90
Cleveland-Canton Spring Co.	77	Hotel Lafayette	81	Ofeldt & Sons.	62	Western Motor Co.	77
Colgan Co., J. W.	56	Hotel Monmouth Beach.	81	Oliver Mfg. Co.	70	Weston Elec. Instrument Co.	85
Columbia Lubricants Co.	76	Hotel Ponchartrain	81	Owen & Co., R. M.	61	Wheeler & Schebler.	110
Comptoir d'Innovations pour Automobiles	91	Hotel Tower	81	Pacific Tucking & Mfg. Co.	55	White & Bagley Co.	Cover
Continental Caoutchouc Co.	62	Howard Motor Works	60	Packard Electric Co.	63	Whitney Mfg. Co.	58
Continental Motor Mfg. Co.	71	Hoyt Electrical Ins. Co.	92	Packard Motor Car Co.	112	Winton Motor Carriage Co.	Cover
Conn. Tel. & Elec. Co.	72	Hub Lubricator Co.	72	Palmer & Singer Mfg. Co.	61	Wisconsin Tire Protector Co.	82
		Huff, Jr., E.	76	Parish & Bingham.	58	Witherbee Igniter Co.	72
		Hume Carriage Co.	59	Parker, Stearns & Co.	75	Wyman & Gordon Co.	54
		Imperial Motor Car Co.	60	Peelers Motor Car Co.	Cover	York Motor Car Co.	87
		Indestructible Steel Wheel Co.	58	Peugeot Freres	56	Zimmerman Mfg. Co.	84
				Pfanstiehl Elec. Laboratory.	56		

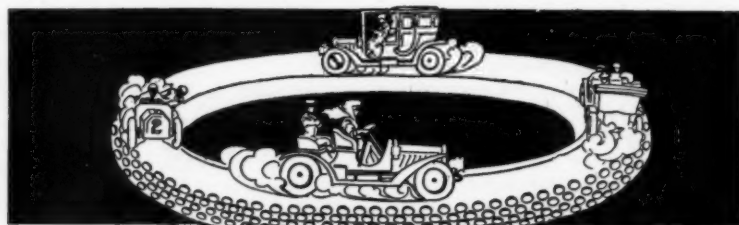
NON-SKID

FIBER TREAD



Bailey's "Wont-Slip" Tread Tires For Automobiles, Motor Cycles and Bicycles

On sale by dealers everywhere



SKIDDING that one terrifying moment when if your car had been equipped with BAILEY'S "WONT-SLIP" TIRES

the accident would not have occurred. Moral "DO IT NOW" and you will avoid such accidents. You see them everywhere. Ask the rider, he knows. There is no metal in the Bailey Tread to heat the tire, pull loose from the rubber or tear the road bed. Bailey Tires are not excluded from the Parks or Drives. The rubber studs of the Bailey Tread are the true principle that give perfect traction and prevent skidding. They are to the automobile what the rudder is to the ship. Write us for descriptive booklet.

N. B.—The extra cost of the Bailey Tires on the list more than smooth of same make is 2 1-2 and 3 in., \$1.50 each; 3 1-2 in., \$2 each; 4 in., \$2.50 each; 4 1-2 in., \$3 each; 5 in., \$3.75 each.

C. J. BAILEY & CO., Patentees, 22 BOYLSTON STREET, BOSTON